Microsoft Dynamics® CRM 2013/2015/2016

Microsoft Dynamics® 365 Customer Engagement

XRM.WebForm PRO

User Guide

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Solution Introduction

XRM.WebForm Solution allows users to create a customized and pre-configured Dynamics CRM WebForm and expose it on your Website, while referencing and defining Entity Forms and business logic in Dynamics CRM. XRM.WebForm exposes a form in a website. Key features of the XRM.WebForm:

- Custom business logic and workflow, either through a targeted CRM Entity or Custom Entity form
- Support for all Entity field types and validation
- Specific WebForm submission rules
- Multi-column WebForm layout, custom CSS and JavaScript
- Easily capture website visitor information
- Secure data with Entity permissions
- WebForm activities access

The ability to render and edit a WebForm in CRM without the intervention of a Developer is a purpose-made feature of the XRM.WebForm solution. WebForms have also additional properties that can be specified in CRM to override default design limitations and add custom CSS and custom JavaScript.

Access to XRM.WebForm Solution

After a successful installation of the XRM.WebForm Add-On, a CRM user can start to fully use all of its functionalities. Creating a new WebForm that we will be deploying to our preferred Website later on is a straightforward process. In the User Guide we will be showing how to set up the WebForm Attributes, how to configure the WebForm Fields and how to expand the WebForm by adding custom CSS and JavaScript.

When the XRM.WebForm is installed, a new area called "PowerXRM" will appear on the Dynamics CRM web application navigation bar, or sitemap. On the expanded Sitemap, the selectable area "XRM.WebForm" with its two subarea entities: WebForms and WebForm Activities. Click on the "WebForms" area to open the view with all Active Web Forms.

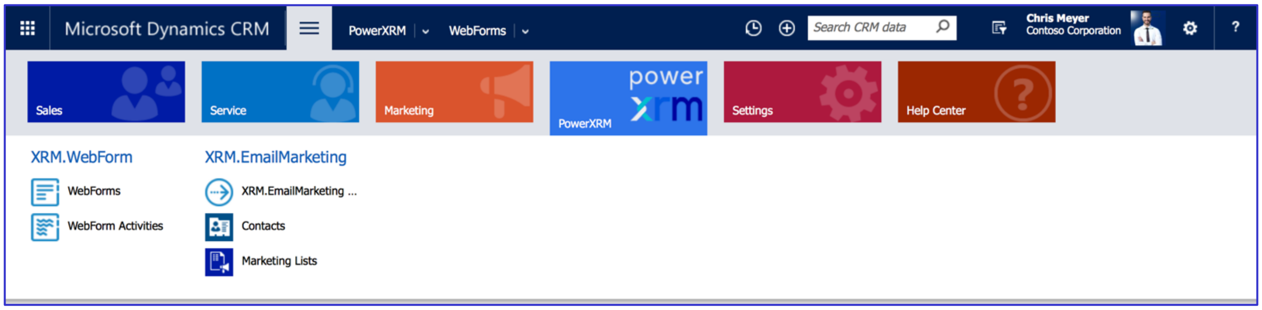


Figure 1 - PowerXRM sitemap

Click on the button "New" on the Dynamics CRM ribbon to create a new Web Form.

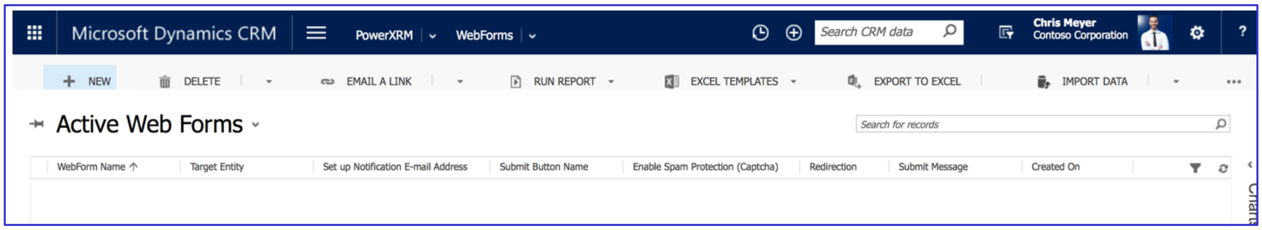
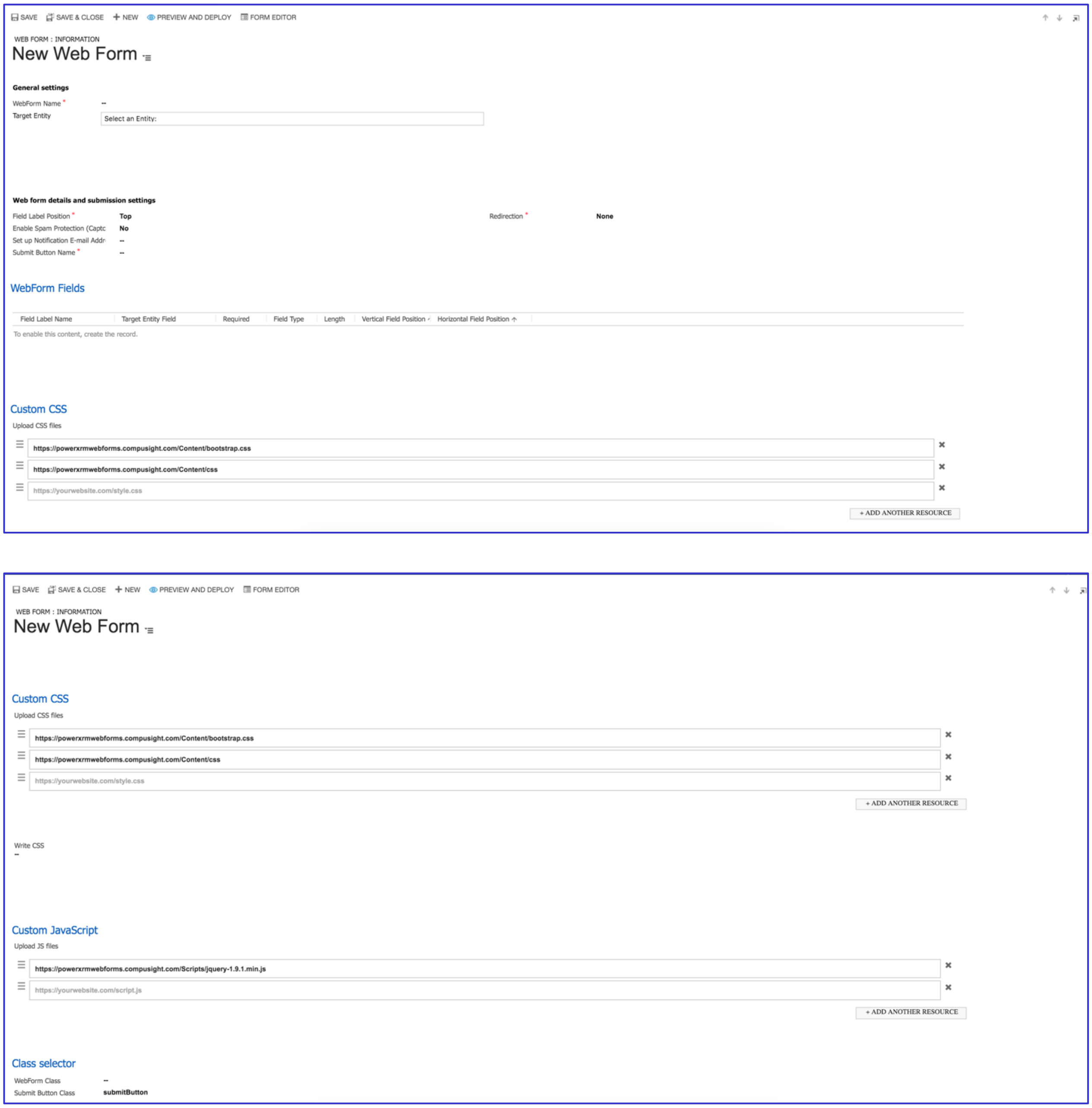


Figure 2 - WebForm view

Setting up WebForm Attributes

The Form where the Web Forms are to edited consists of four tabs: General, WebForm Fields, Custom CSS, Custom JavaScript. In this section, the first tab: General contains all WebForm attributes. They are divided into two sections: General Information and WebForm Details and Submission Settings.



WEB FORM : INFORMATION

New Web Form

General settings

WebForm Name *	--
Target Entity	Select an Entity:

Web form details and submission settings

Field Label Position *	Top	Redirection *	None
Enable Spam Protection (Captc	No		
Set up Notification E-mail Addr	--		
Submit Button Name *	--		

WebForm Fields

Field Label Name	Target Entity Field	Required	Field Type	Length	Vertical Field Position	Horizontal Field Position

To enable this content, create the record.

Custom CSS

Upload CSS files

https://powerxrmwebforms.compusight.com/Content/bootstrap.css

https://powerxrmwebforms.compusight.com/Content/css

https://yourwebsite.com/style.css

WEB FORM : INFORMATION

New Web Form

Custom CSS

Upload CSS files

https://powerxrmwebforms.compusight.com/Content/bootstrap.css

https://powerxrmwebforms.compusight.com/Content/css

https://yourwebsite.com/style.css

Write CSS

--

Custom JavaScript

Upload JS files

https://powerxrmwebforms.compusight.com/Scripts/jquery-1.9.1.min.js

https://yourwebsite.com/script.js

Class selector

WebForm Class	--
Submit Button Class	submitButton

Figure 3 - Form of a WebForm

Let’s explore field by field.

WebForm Name

The name of the WebForm that is not visible on the WebForm published on the Website. This required name is used only within Microsoft Dynamics CRM for WebForm identification.

Target Entity

This is the entity where new entity records will be created after WebForm is submitted. You can type the name of the entity (it has autocomplete property) or you can select it from the drop down list. If you create custom entities for your CRM instance, you will have the possibility to create records into this entity too. Just make sure the custom entity doesn’t have the property “Can be customized” set to False. With this property, entity would not be visible on the drop down list. If you don’t want entity records to be created when the web form is submitted, you can choose not to associate a Target Entity. In this case, you will still get the notification email with the data about the visitor’s submission, if the Email notification field is inserted.

Field Label Position

This attribute refers to the position of the label names on the WebForm. You can select a value from the option set list containing: Top, Left and Inline. “Top position” means that the labels will be shown above input fields on the form, “left position” means that the labels will be shown left of the input fields and “inline position” means that all labels and input fields will be in one row (in order: label 1, input field 1, label 2, input field 2…).

Enable Spam Protection (Captcha)

This is the setting where you can choose to include Captcha where the visitor will need to confirm the checkbox or to perform image recognition while submitting on your website. This feature is used to prevent from spamming and abuse of WebForm on your website. Captcha that is being used is Google’s reCAPTCHA that showed to have the best results. Additional details that needs to be taken care of when Google’s reCAPTCHA is included can be found in the chapter “Previewing and deploying Web Form”.

Set up Notification Email Address

An Email Address where e-mail will be sent after a WebForm is submitted. E-mails include the list of submitted values and if the submission was successful, the link of the WebForm Activity. Otherwise, error message that caused submission failure will be presented in that e-mail. Additional information can be found in chapter Email notifications.

Submit Button Name

This field is required and it implies the name of the Submit button on WebForm. It will appear as the text written on the button.

Redirection

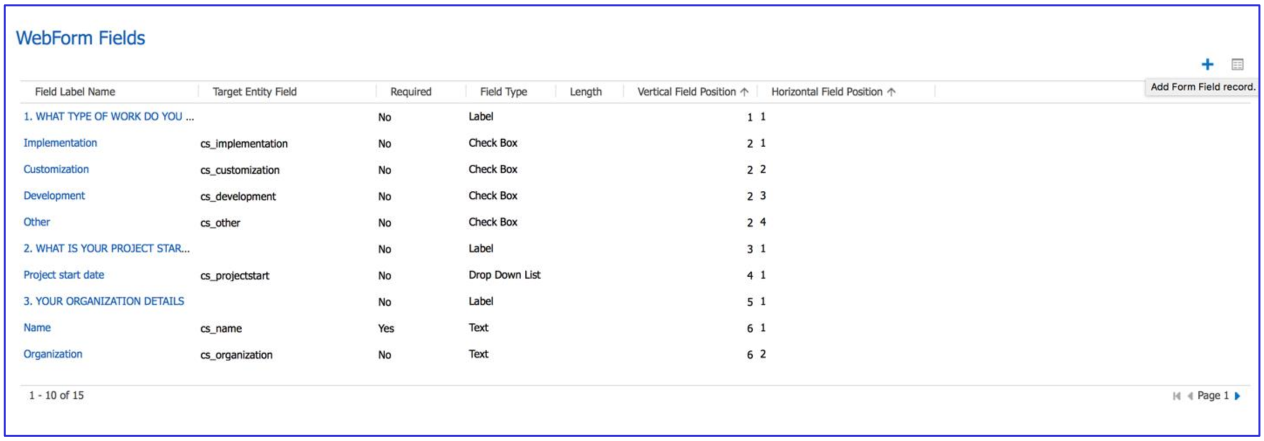
This attribute refers to the redirect to a specific call-to action after the visitor's submission. It determines how the submission will appear to the visitor, meaning what will happen from the visitor's perspective, when he or she clicks on submit button. You can select a value from the option set list containing:

- None – when the WebForm is submitted and if this option is chosen, WebForm will refresh and all input fields will be cleared from submitted values. The visitor will not be redirected anywhere.
- Auto – if this option is chosen, new field "Redirection URL" on this CRM WebForm form will appear. That field will require you to enter valid URL. When the WebForm is submitted, visitor will be automatically redirected to the webpage specified by that URL. Take care that if the WebForm is deployed to your website as iframe, webpage specified by "Redirection URL" will appear only in that iframe.
- Link – this redirection mode will cause appearance of intermediate page between the WebForm and webpage specified by **"Redirection URL".** That intermediate webpage will contain submit message and a link redirecting to the specified URL. Choosing this option for redirection will cause appearance of fields: "Redirection URL", **"Redirection text"**, **"Submit Message"** under the same section and the fields **"Submit Message Class"** and **"Link/Button Class"** under the tab "Class selector". "Redirection URL" is the URL that the visitor will be redirected to when he or she clicks on the link on that intermediate page. "Redirection text" refers to the text written on that link. "Submit message" refers to the message written on the top of the intermediate page. Also, you can add class selectors to submit message and to the link: "Submit Message Class" refers to the class selector of submit message and "Link/Button Class" refers to the class selector of the link (both can be found under the tab "Class selector").

- Button – this redirection mode will cause appearance of intermediate page between the WebForm and webpage specified by **"Redirection URL".** That intermediate webpage will contain submit message and a button redirecting to the specified URL. Choosing this option for redirection will cause appearance of fields: "Redirection URL", **"Redirection text"**, **"Submit Message"** under the same section and the fields **"Submit Message Class"** and **"Link/Button Class"** under the tab "Class selector". "Redirection URL" is the URL that the visitor will be redirected to when he or she clicks on the button on that intermediate page. "Redirection text" refers to the text written on that button. "Submit message" refers to the message written on the top of the intermediate page. Also, you can add class selectors to submit message and to the button: "Submit Message Class" refers to the class selector of submit message and "Link/Button Class" refers to the class selector of the button (both can be found under the tab "Class selector").

Creating WebForm Fields

Next step after filling out the General settings tab and saving them is to add fields for your web form.



WebForm Fields

Field Label Name	Target Entity Field	Required	Field Type	Length	Vertical Field Position ↑	Horizontal Field Position ↑
1. WHAT TYPE OF WORK DO YOU ...		No	Label		1	1
Implementation	cs_implementation	No	Check Box		2	1
Customization	cs_customization	No	Check Box		2	2
Development	cs_development	No	Check Box		2	3
Other	cs_other	No	Check Box		2	4
2. WHAT IS YOUR PROJECT STAR...		No	Label		3	1
Project start date	cs_projectstart	No	Drop Down List		4	1
3. YOUR ORGANIZATION DETAILS		No	Label		5	1
Name	cs_name	Yes	Text		6	1
Organization	cs_organization	No	Text		6	2

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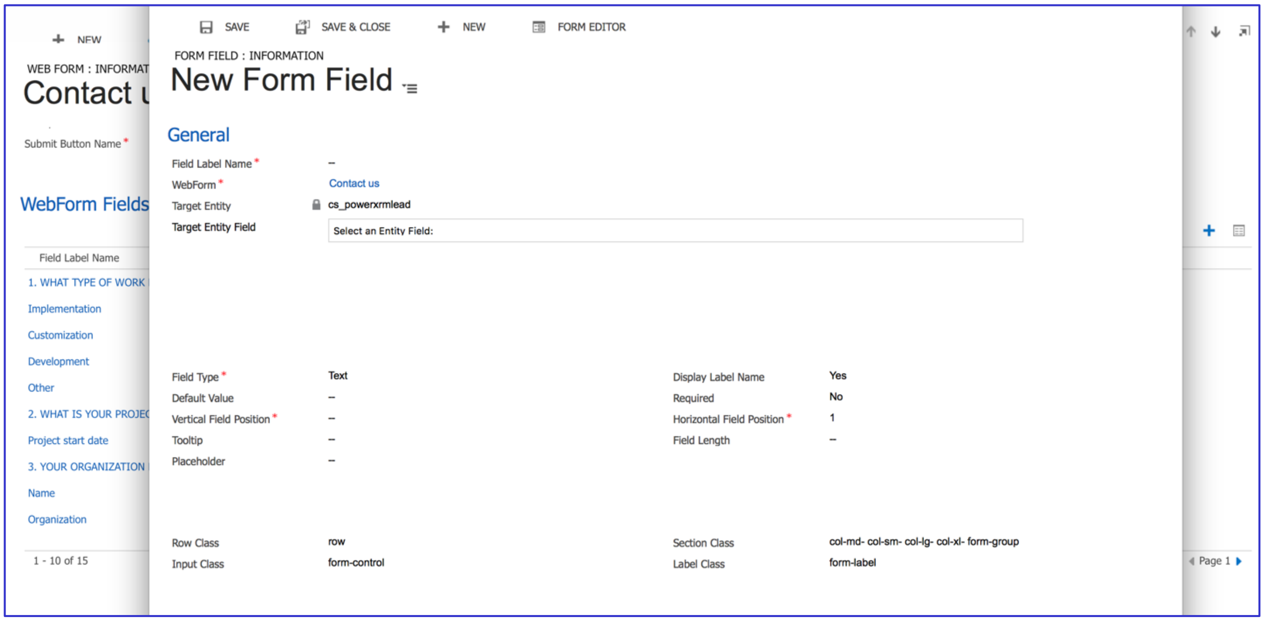
Figure 4 - WebForm Fields subgrid

Click on the **“ + “** button above the WebForm Fields subgrid and a form for creating WebForm field will open. As you can see on next picture, form consists of three sections: General information, WebForm field details and CSS class selector.



FORM FIELD : INFORMATION

New Form Field

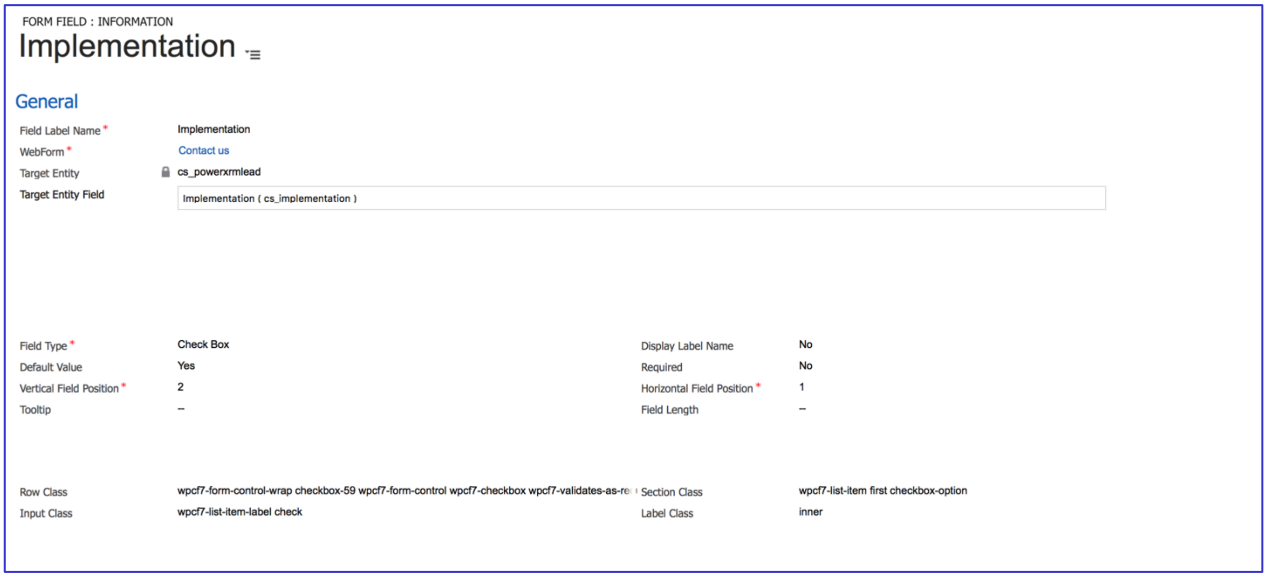
General

Field Label Name *	--
WebForm *	Contact us
Target Entity	cs_powerxrmlead
Target Entity Field	Select an Entity Field:

Field Type *	Text	Display Label Name	Yes
Default Value	--	Required	No
Vertical Field Position *	--	Horizontal Field Position *	1
Tooltip	--	Field Length	--
Placeholder	--		

Row Class	row	Section Class	col-md- col-sm- col-lg- col-xl- form-group
Input Class	form-control	Label Class	form-label

Figure 5 - Adding/Creating a new WebForm Field



FORM FIELD : INFORMATION

Implementation

General

Field Label Name *	Implementation		
WebForm *	Contact us		
Target Entity	cs_powerxrmlead		
Target Entity Field	Implementation (cs_implementation)		
Field Type *	Check Box	Display Label Name	No
Default Value	Yes	Required	No
Vertical Field Position *	2	Horizontal Field Position *	1
Tooltip	--	Field Length	--
Row Class	wpcf7-form-control-wrap checkbox-59 wpcf7-form-control wpcf7-checkbox wpcf7-validates-as-re	Section Class	wpcf7-list-item first checkbox-option
Input Class	wpcf7-list-item-label check	Label Class	inner

Figure 6 - Form of Existing WebForm Field

The meaning of each field is as follows:

Field Label Name

Value entered into this field has two purposes. First purpose is to give a name to the WebForm field that will be used within CRM for its identification. Second purpose is to give the label to the form field. It is the text that will be written next to the input field on the WebForm (its relative position to the input field will be determined by "Label position" attribute of the WebForm) if the "Display Label Name" is set to "yes".

WebForm

Identifier for WebForm associated with WebForm Field. It is read-only field.

Target Entity

Entity where new entity records will be created after WebForm is submitted. It is also read-only field.

Target Entity Field

This field will appear only if the parent WebForm has target entity. It allows you to choose whether this WebForm field will map to certain field of target entity. It basically means following: if the WebForm has a target entity, new entity record will be created with each submission and that entity record will have fields set to submitted values. By this field, you choose which WebForm field will map to each specific entity's field. It is made as autocomplete field, but it can also appear as drop down list from which you can select specific entity field. Drop down list contains only the fields of chosen entity, which can be modified. If the parent WebForm does not have a target entity, this field will not appear. In addition, even if the parent WebForm has a target entity, WebForm field does not necessarily need to have target entity field. Therefore, certain WebForm field will not map to anything into CRM, but its value will be visible through WebForm Activity and e-mail (if the e-mail address for notifications is set). The example of that field could be "I agree to the terms and conditions" checkbox that is very frequent on the WebForms. It could be set as required so the WebForm cannot be submitted if the checkbox is not checked, but there is no need to save that information into entity record.

Field Type

This field determines the type of field that will be created in terms of its look on the WebForm. From option set you can choose from a diverse list of types for fields on your Web form. These include:

- Text

This is classical HTML text input field. Single line of text can be entered in this field. No additional validation is provided.

- Label

This field type will result in showing only label and not the any field for input. Therefore, WebForm visitor cannot submit any value associated with this field and consequently this WebForm field cannot be mapped to field of entity record that is being created by submission. It is mainly used to accomplish more structured look & feel of WebForm.

- Number

Field type that represents number. It will be visible on the WebForm as HTML number control. If you are not mapping it to a CRM entity record which has some number type (i.e. Whole number), you can change the number precision that is the value between 0 and 6. Number precision is the number denoting allowed number of decimal places. It also determines the step attribute of that field when it becomes HTML number control. Number precision with value 0 means whole number. The default value for precision is: 2 meaning the precision is 0.01, 3 means 0.001, etc.

- Multiple Text

Multiple lines of text can be entered in this field. This field will render as textarea.

- Drop Down List

Field type that represents list of item for user to choose one value from a list. It will render as HTML SELECT control. When chosen, additional “Options” field will appear, allowing you to enter values for dropdown list. Insert each dropdown option in new line of Options field. In case you already selected a Target Entity Field that has type “Option set”, this field will be populated automatically and it will be read-only, because these values for dropdown options were already determined by the definition of CRM entity’s field. If the default value is set, it should have the same name as one of the options. In that case, when the WebForm is loaded, that value will be selected by default.

- Radio Button

Field type that represents list of bullets for CRM user to choose only one of a predefined set of options. It will be rendered as the list of HTML radio buttons. When chosen, additional “Options” field will appear, allowing you to enter values for that list of radio buttons. Insert each radio button text in new line of Options field. In case you already selected a Target Entity Field that has type “Option set”, this field will be populated automatically and it will be read-only, because these values for radio button options were already determined by the definition of CRM entity’s field. If the default value is set, it should have the same name as one of the options. In that case, when the WebForm is loaded, that value will be selected by default.

- Check Box

Field with this field type will render as HTML check box. The label of this field will be written next to the check box. Also, default value needs to be set for this WebForm field because when the WebForm visitor checks it, WebForm will automatically set the value of that field to its default value. Otherwise, WebForm field will not be submitted at all. Therefore, if the field maps to “Two Options” typed entity’s field, it would be a good practice to put as default value the option that is NOT default option for that field. For example, “no” option is the default option and in that case, “yes” option’s label should be written as default value. When the WebForm visitor submits the WebForm, if he or she checks the checkbox, “yes” option will be set for that entity’s record. Otherwise, field will not be submitted, but when the entity record is created, it will set its field value to “no” option since it is the default option.

- Date

This field will render as HTML input field with “date” as its type. By default, date format is YYYY-MM-DD. Its appearance will be largely determined by the browser type, whether they support this HTML input field type and how they render it. In the worst case, it will look like regular HTML input field with type “text”. However, irrespective to the browser, the same validation will be retained, meaning that the WebForm will not be allowed for submission if the correct date format is not inputted.

- Phone Number

Phone number will not render into any specifically designed HTML input control, but it will rather appear as HTML text input field. However, it has custom validation logic that will require input of the phone number. It should cover most of the phone number formats all around the world.

- Zip Code

Zip code will not render into any specifically designed HTML input control, but it will rather appear as HTML text input field. However, it has custom validation logic that will require input of valid ZIP code. Most of ZIP codes should satisfy this validation.

- Email

This field will render as HTML control with type of e-mail. It will have appearance of HTML text input control, but it will contain standard HTML validation for e-mails.

- Hidden

A hidden field will be rendered as HTML input control with hidden type, meaning that this field will not be visible on the WebForm. If it has set default value, then that default value will be set each time the WebForm is submitted. Otherwise, no data will be submitted. This type of field can be used if submitting always the same value is required. For example, if two distinct WebForms are used for creating records of the same entity, then hidden field can be used to make distinction between those two WebForms – putting different values as default values for those two WebForms.

Be aware that list can be filtered depending on a selection from a Target Entity Field. For example, if you choose a field on entity which Attribute Format is set to Email, you cannot select Text or Label as field type. XRM.WebForm attempts to reduce the space for WebForm visitor making error, so not each field type can be used for capturing data to every CRM entity field.

Display Label Name

True/False option that can allow WebForm editor to hide/show the label next to the field.

Default Value

Property where you can set default value on field of the Web Form. If the field type is Drop down list or radio button, default value should be the one from the Option set values. If the field type is Check box, the default value will be set as the value of that field when the WebForm is submitted.

Required

Defines whether the field is required to be filled in, in order for the form to be submitted. If this option is chosen and the label is visible on the WebForm, class selector "required" will be added for label class. This class selector will result in added red "*" sign next to the label of that field on the WebForm.

Tooltip

Tooltip can be set and it will appear on hover over the WebForm field.

Field Length

Maximum number of characters that can be typed in to a WebForm field.

Placeholder

Property where you can set placeholder element on a field. Text, date, zip code, phone number, e-mail, number and drop down list are field types that can have placeholder.

Row

Vertical order of the field on the Web form (i.e. 1st, 2nd, 3rd, etc.). It determines the row in which the WebForm field will be placed. All fields with the same vertical field position will appear in the same row and the maximum number of the fields in one row is 6. If certain row does not contain any field, it will not take any space on the WebForm. So the blank space cannot be made by putting one field in 1st row and the next field in 101st row. If there is no field in between, they will appear one after another.

Column

Property with option set list from where you can select horizontal order of the field in the row of the Web form. Selected can be value between 1 and 6. WebForm fields that have the same vertical field position, i.e. being in the same row, will be rendered in the horizontal order determined by the horizontal field position. The field with the smallest horizontal field position will be the leftmost field and the one with the greatest value will be the rightmost.

CSS class selector

On CSS class selector section, you can enter CSS selectors for certain elements on the Web form fields and form itself. This section includes:

- Section class
- Row class
- Label class
- Input class

Selector values have default values when opened a new WebForm field, used by Bootstrap, but it is not mandatory to use them, so you can use your own classes for styling. For more explanation, please see chapter Setting up CSS and JavaScript and schema picture.

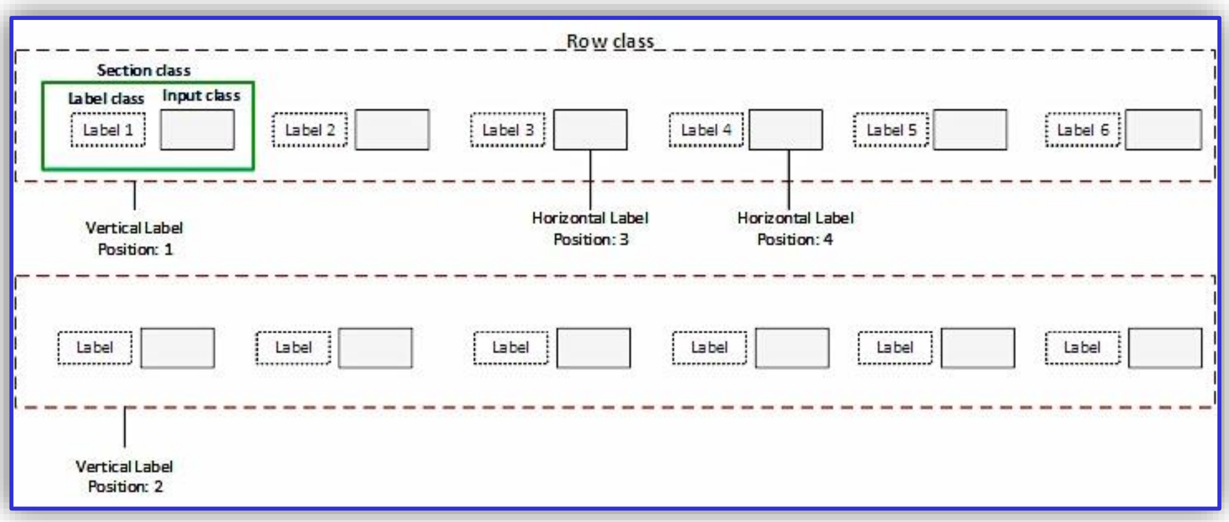
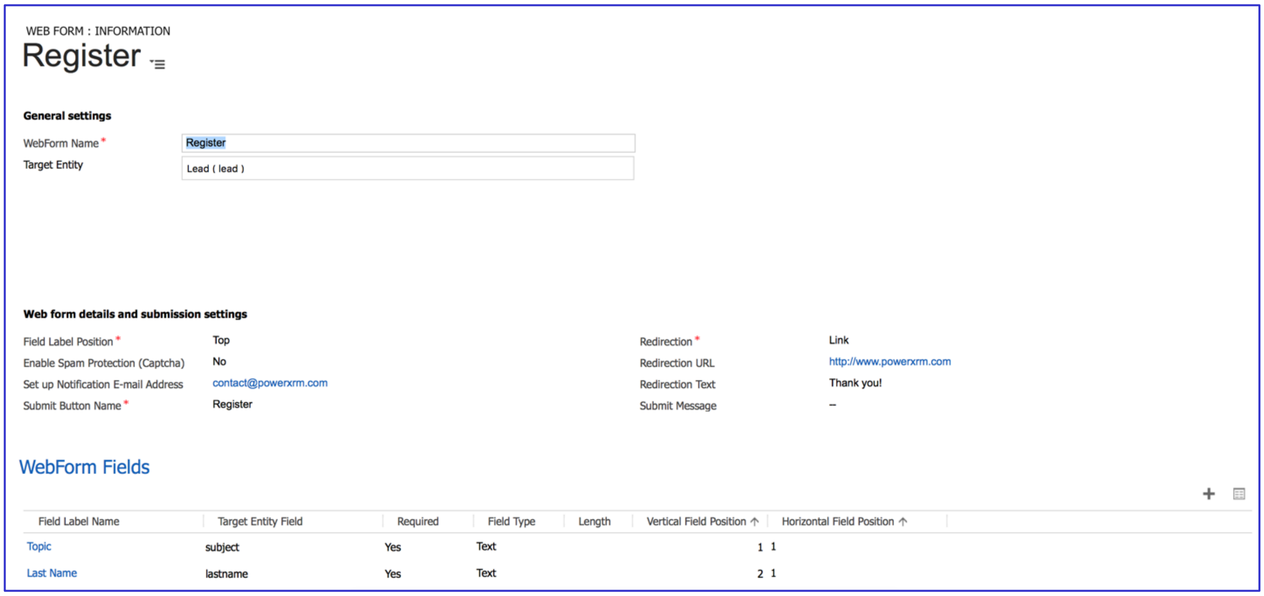


Figure 7 - CSS class selector elements and field position relation

Business Required WebForm Fields

In addition to the business logic of the WebForm Add-On, when creating a new WebForm with selected Target Entity, we expand its functionalities to automatically create all business required fields regarding its entity (e.g. when creating Lead WebForm form, fields Topic and Last Name will automatically populate on subgrid of this form). In case of updating the WebForm, for example when changing the Target Entity from Lead to Account, business-required fields for Account will be created, insuring at the same time that the previous entity records are not deleted. If you find this form field redundant, it can be deleted. Form fields for previously selected entity can be recognized as entity records without the Target Entity Field on the subgrid. Depending of the format and type of a business-required field, Field Type is properly set. If a business required field type is created as an Option set, Dropdown list will be selected inside Field Type value.



WEB FORM : INFORMATION

Register

General settings

WebForm Name *	Register
Target Entity	Lead (lead)

Web form details and submission settings

Field Label Position *	Top	Redirection *	Link
Enable Spam Protection (Captcha)	No	Redirection URL	http://www.powerxrm.com
Set up Notification E-mail Address	contact@powerxrm.com	Redirection Text	Thank you!
Submit Button Name *	Register	Submit Message	–

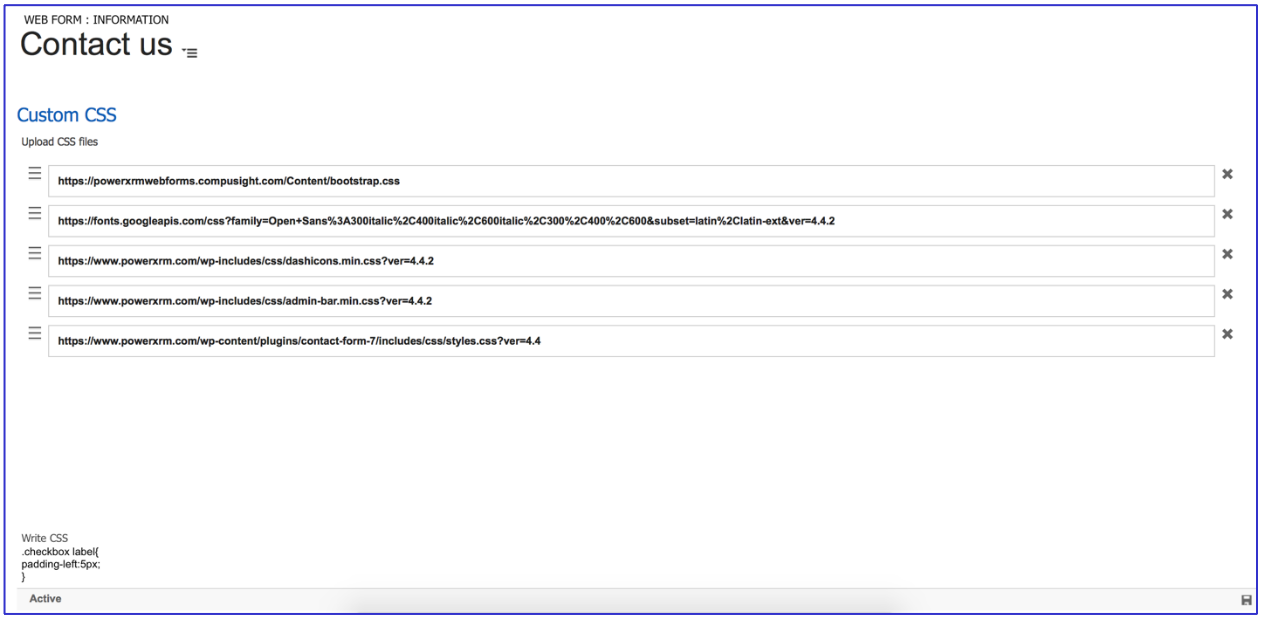
WebForm Fields

Field Label Name	Target Entity Field	Required	Field Type	Length	Vertical Field Position ↑	Horizontal Field Position ↑
Topic	subject	Yes	Text		1	1
Last Name	lastname	Yes	Text		2	1

Figure 8 - Subgrid with an example of creating business required form fields (Topic, Last name)

Setting up CSS and JavaScript

On the tabs "Custom CSS" and "Custom JavaScript", the custom CSS and JavaScript for the WebForm can be specified. Adding CSS and JavaScript is the most powerful way to manipulate the WebForm. Any CSS property of any element on the WebForm can be set and any JavaScript code can be triggered on any event that make the WebForm a flexible solution. One of the most important feature above all is the ability for the WebForm to be adaptable to the look & feel of the parent website where the WebForm will be embedded. If CSS and JavaScript are manipulated carefully, the WebForm can be customized in the way that the web site visitor does not recognize that the WebForm is not an inherent part of its Website.



WEB FORM : INFORMATION

Contact us

Custom CSS

Upload CSS files

https://powerxrmwebforms.compusight.com/Content/bootstrap.css

https://fonts.googleapis.com/css?family=Open+Sans%3A300italic%2C400italic%2C600italic%2C300%2C400%2C600&subset=latin%2Clatin-ext&ver=4.4.2

https://www.powerxrm.com/wp-includes/css/dashicons.min.css?ver=4.4.2

https://www.powerxrm.com/wp-includes/css/admin-bar.min.css?ver=4.4.2

https://www.powerxrm.com/wp-content/plugins/contact-form-7/includes/css/styles.css?ver=4.4

Write CSS

```
.checkbox label{
padding-left:5px;
}
```

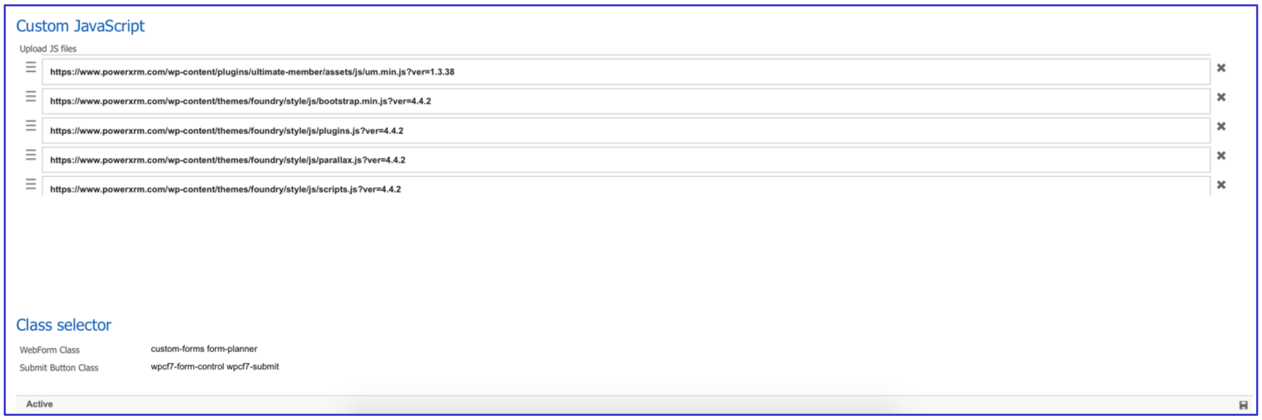
Active

Figure 9 - Contact Us WebForm with CSS files

The recommended way to add CSS and JavaScript to the WebForm is by adding CSS and JavaScript files available through their URLs. The most common is to take all CSS and JavaScript files of the parent website and add them to the WebForm. Additionally, new files can be created, uploaded to the Web Server (i.e. Web Server where the parent website is located) and attached to the WebForm. On each tab, there is a section called "Upload CSS/JS files" where any number of CSS/JS files can be added. Each file is added to one field. If there are not enough Fields, new Fields can be easily added by clicking

on "+ Add new resource" button. Those Fields that are to accessed can be removed by clicking on "X", right of each field. Empty Fields will be ignored. Files should be accessed by their URL and Dynamics CRM will make sure that the URL is written down. It should contain “https://” or “ftp://” protocol prefix. Do not use “http” protocol due to security issues, but use instead “https”. Thing to have in mind with adding CSS and JS files that are deployed to external Web Server is that, if that Web Server has SSL certificate, that certificate needs to be the one recognized as secure by most of browsers. If the browser does not recognize CSS and JS files, it means that these files are blocked because Web Server has insecure SSL certificate. If the aim is only to preview the WebForm, it can be done by opening root URL of that Web Server through browser and marking its SSL certificate as secure. That would enable preview of these CSS or JS files for that specific browser, but it will not work for any other browser and for any other user. One of correct solutions would be:

- Moving those CSS and JS files to Web Server with secured SSL certificate
- Copying created WebForm as HTML and incorporating that HTML to parent website. This solution will work only if these CSS and JS files are on the same Web Server as the parent website. In that case, when the user accesses website through browser, it will accept SSL certificate and by that, he/she will see the complete WebForm, together with all CSS and JS files. If the CSS and JS files with problematic SSL certificate are on some other Web Server, this solution will not work.
- If the problem is with CSS file, it can be opened and its complete content can be copied to “Write CSS” field. This will allow keeping CSS attributes, but their origin will not be problematic CSS file, but rather inline CSS.



Custom JavaScript

Upload JS files

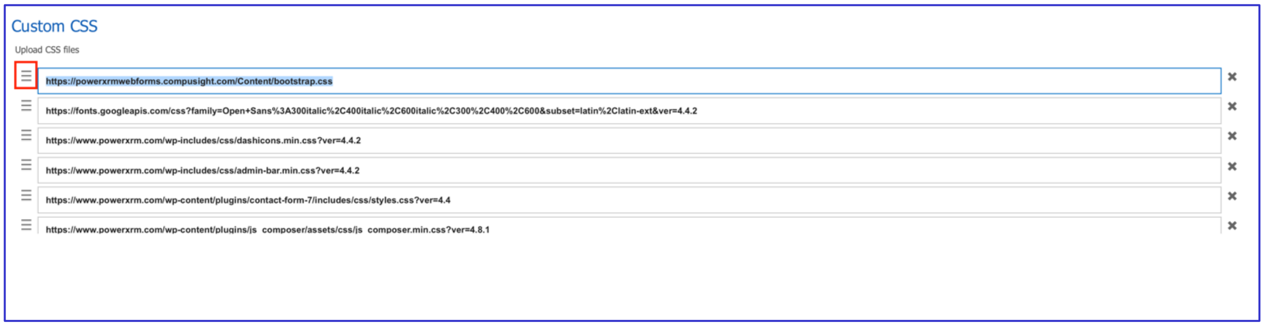
https://www.powerxrm.com/wp-content/plugins/ultimate-member/assets/js/um.min.js?ver=1.3.38
https://www.powerxrm.com/wp-content/themes/foundry/style/js/bootstrap.min.js?ver=4.4.2
https://www.powerxrm.com/wp-content/themes/foundry/style/js/plugins.js?ver=4.4.2
https://www.powerxrm.com/wp-content/themes/foundry/style/js/parallax.js?ver=4.4.2
https://www.powerxrm.com/wp-content/themes/foundry/style/js/scripts.js?ver=4.4.2

Class selector

WebForm Class: custom-forms form-planner
Submit Button Class: wpcf7-form-control wpcf7-submit

Figure 10 - Contact Us Form with JS files

Another option is resorting fields with files. Position of the field can be changed by dragging left-sided symbol ☰, click on that symbol and drag the field up or down in order to position it in the correct position. The order of the specified files is important, because files will be added to the WebForm in the same order. If the order of files is not correct, several CSS properties can override the others, or specific JavaScript code could stop working. It is important to make sure that the order of the files added to the WebForm is in the same order as the one on the parent website.



Custom CSS

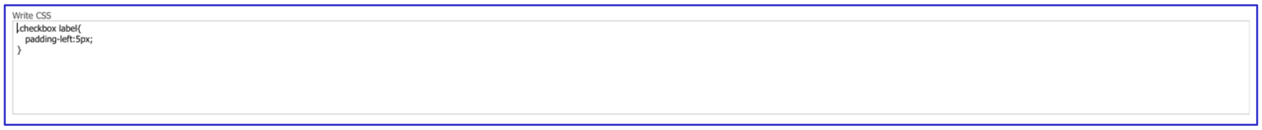
Upload CSS files

```
https://powerxrmwebforms.compusight.com/Content/bootstrap.css
https://fonts.googleapis.com/css?family=Open+Sans%3A300italic%2C400italic%2C600italic%2C300%2C400%2C600&subset=latin%2Clatin-ext&ver=4.4.2
https://www.powerxrm.com/wp-includes/css/dashicons.min.css?ver=4.4.2
https://www.powerxrm.com/wp-includes/css/admin-bar.min.css?ver=4.4.2
https://www.powerxrm.com/wp-content/plugins/contact-form-7/includes/css/styles.css?ver=4.4
https://www.powerxrm.com/wp-content/plugins/js composer/assets/css/js composer.min.css?ver=4.8.1
```

Figure 11 - Drag option

By default, Bootstrap and XRM.WebForm CSS files are added. With JavaScript files, jQuery is added. These files can be removed, but it is highly recommended to have them included. They help the WebForm to maintain its structure, the size and position of Fields and Buttons. Consequently, the CRM users don't need to add any custom CSS or JavaScript if that's not necessary, still the WebForm will look sharp due to Bootstrap, jQuery and XRM.WebForm CSS file.

Besides attaching files, CSS can be written directly in the CRM. In the field labeled "Write CSS", CSS can be written directly and it will be added after other CSS files. This makes sure that it overrides certain properties defined in different way in the files. Catch WebForm elements by ID or Class Selector and write any CSS that would make the WebForm look better.



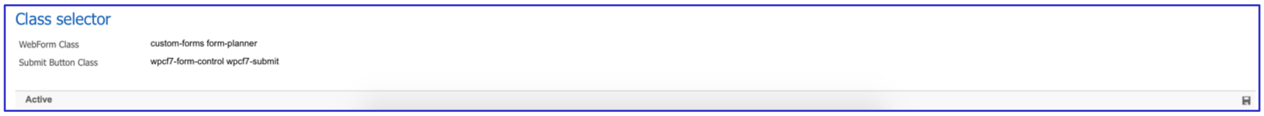
Write CSS

```
.checkbox label{
   padding-left:5px;
}
```

Figure 12 - Write CSS Field

XRM.WebForm allow users to add class selectors to certain elements. Class selectors can be used by CSS or JavaScript to retrieve specific elements and add them to certain properties or events. CSS properties are usually added primarily to the class selectors. By adding selectors to certain elements on the Web Form, they automatically inherit those properties. When it comes to the WebForm, following elements can get classes:

- form ("WebForm Class" field), submit button ("Submit Button Class" field), submit message ("Submit Message Class" field) and link or button used for redirection ("Redirection Link/Button Class" field). When it comes to Form Field and its class selectors, they are explained in details in the chapter: "Setting up Form Fields". If an element has several class selectors they will be written in the corresponding field, separated by a blank space. By default, all of them have certain class selectors and user may remove them or change them, according to CSS and JavaScript definitions. However, if the WebForm includes Bootstrap, it is necessary to keep them, so that the WebForm pulls out the Bootstrap's properties.



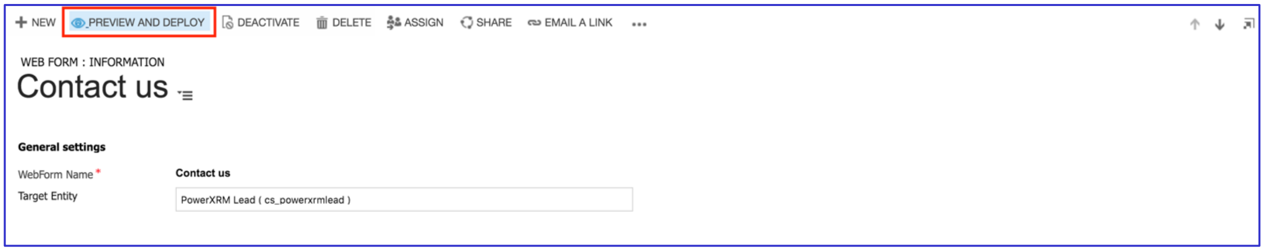
Class selector

WebForm Class	custom-forms form-planner
Submit Button Class	wpcf7-form-control wpcf7-submit

Figure 13 - Class Selectors

Previewing and Deploying Web Form

When the WebForm is completely configured with all its attributes, all form fields added and configured, and CSS and JS files attached, it can be published and previewed. The "Preview and Deploy" button allows to preview how the WebForm will look on the website before it can be published. All these functionalities are provided on the pop-up when "Preview and Deploy" button from the ribbon is selected.



WEB FORM : INFORMATION

Contact us

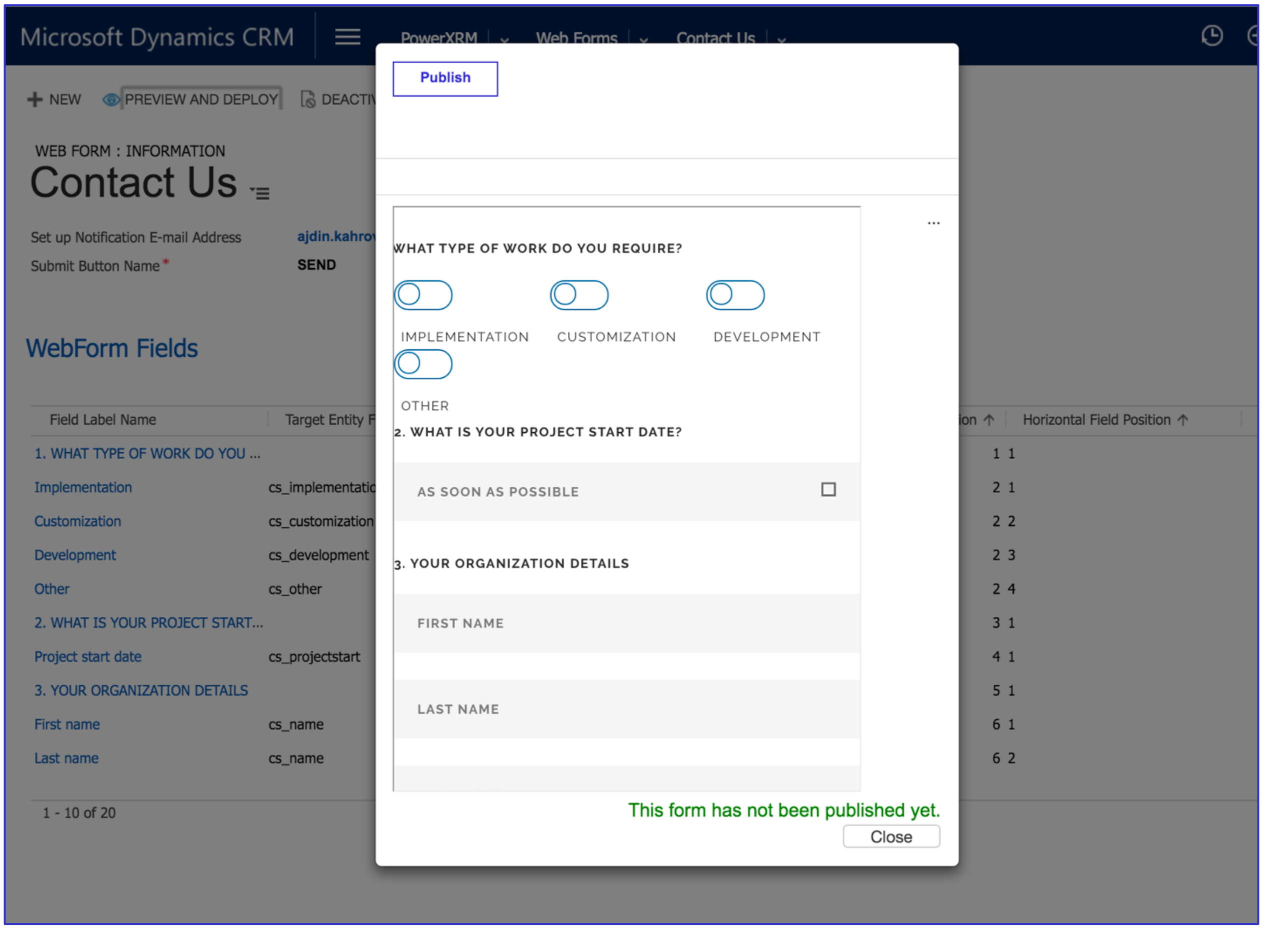
General settings

WebForm Name * Contact us

Target Entity PowerXRM Lead (cs_powerxrmlead)

Figure 14 - Preview and Deploy button

When the pop-up is clicked, the preview of the WebForm can be viewed. If the WebForm has been previously published, then the published version will be shown as well. If the WebForm provides the best user experience the CRM user, then "Publish" button should be clicked. Otherwise, popup can be closed without any changes applied, and new changes can be made. After the required changes are done, "Preview and Deploy" button can be clicked again to preview the adapted WebForm.



Microsoft Dynamics CRM | PowerXRM | Web Forms | Contact Us

+ NEW | PREVIEW AND DEPLOY | DEACTI

WEB FORM : INFORMATION

Contact Us

Set up Notification E-mail Address: ajdin.kahro

Submit Button Name*: SEND

WebForm Fields

Field Label Name	Target Entity F	ion	Horizontal Field Position
1. WHAT TYPE OF WORK DO YOU ...		1	1
Implementation	cs_implementatio	2	1
Customization	cs_customization	2	2
Development	cs_development	2	3
Other	cs_other	2	4
2. WHAT IS YOUR PROJECT START...		3	1
Project start date	cs_projectstart	4	1
3. YOUR ORGANIZATION DETAILS		5	1
First name	cs_name	6	1
Last name	cs_name	6	2

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Publish

WHAT TYPE OF WORK DO YOU REQUIRE?

○ IMPLEMENTATION ○ CUSTOMIZATION ○ DEVELOPMENT

○ OTHER

2. WHAT IS YOUR PROJECT START DATE?

AS SOON AS POSSIBLE □

3. YOUR ORGANIZATION DETAILS

FIRST NAME

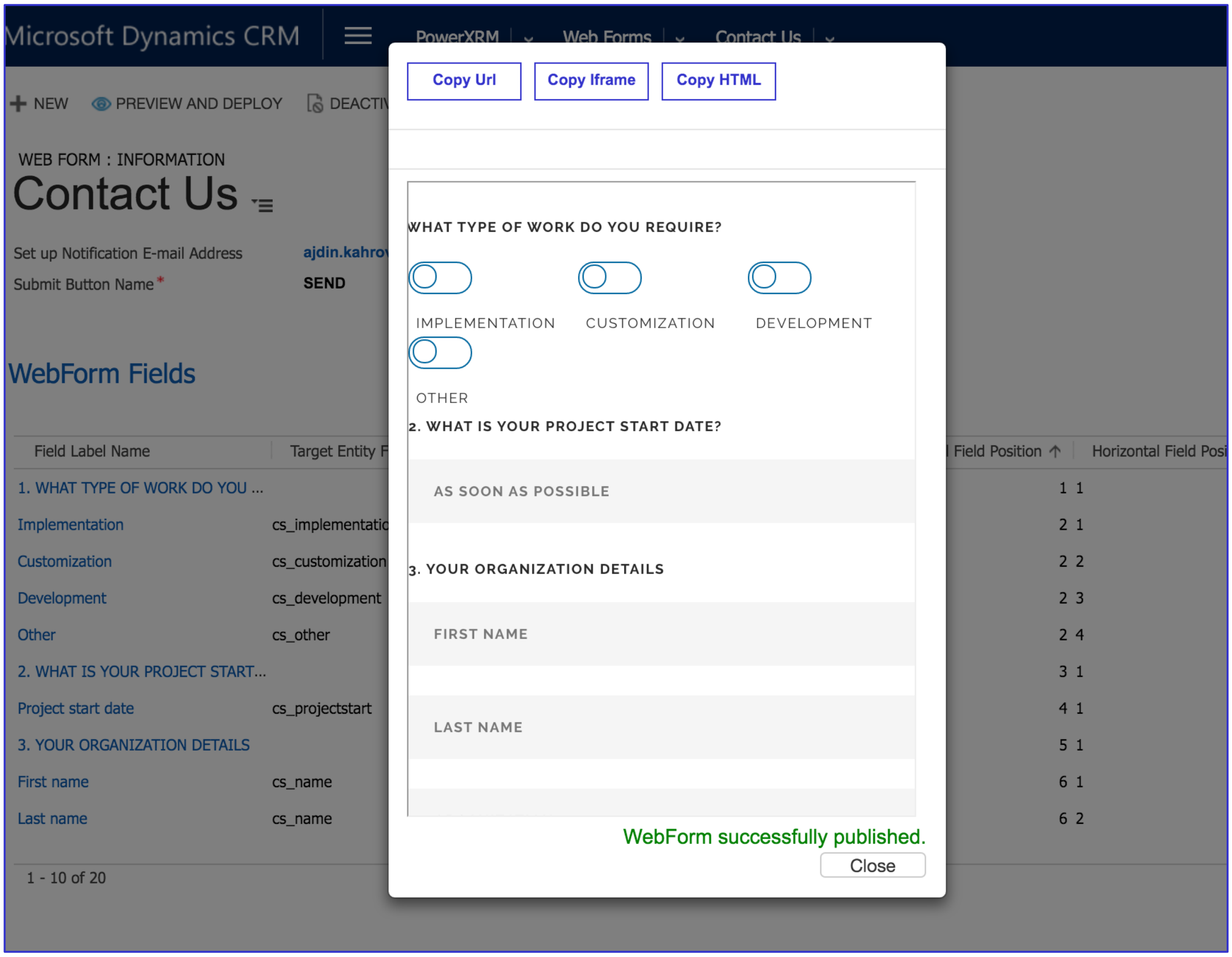
LAST NAME

This form has not been published yet.

Close

Figure 15 - Dialog before "Publish" button is clicked on the Contact Us WebForm

After clicking the "Publish" button the WebForm is published. If the older version of it existed, it will be overwritten by the current version (details of it are explained under "Updating Web Form" section). New buttons will appear: "Copy as URL", "Copy as iframe" and "Copy as HTML" as three ways of deploying it to the websites. In general, WebForm is primarily available by its unique URL and that URL will be copied to clipboard on "Copy as URL" button click. If "Copy as iframe" is clicked, it will create <iframe> HTML tag, embed the URL of the WebForm to it and specify default width and height of the iframe. That HTML tag will be copied to user's clipboard and the user can see it by pasting it anywhere. URL and iframe are intended to be placed on the website (as iframe or perhaps anchor) and therefore they should be pasted into a website editor.



WEB FORM : INFORMATION

Contact Us

Set up Notification E-mail Address ajdin.kahro

Submit Button Name* SEND

WebForm Fields

Field Label Name	Target Entity F	Field Position	Horizontal Field Posi
1. WHAT TYPE OF WORK DO YOU ...		1	1
Implementation	cs_implementatio	2	1
Customization	cs_customization	2	2
Development	cs_development	2	3
Other	cs_other	2	4
2. WHAT IS YOUR PROJECT START...		3	1
Project start date	cs_projectstart	4	1
3. YOUR ORGANIZATION DETAILS		5	1
First name	cs_name	6	1
Last name	cs_name	6	2

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WHAT TYPE OF WORK DO YOU REQUIRE?

○ IMPLEMENTATION ○ CUSTOMIZATION ○ DEVELOPMENT

○ OTHER

2. WHAT IS YOUR PROJECT START DATE?

AS SOON AS POSSIBLE

3. YOUR ORGANIZATION DETAILS

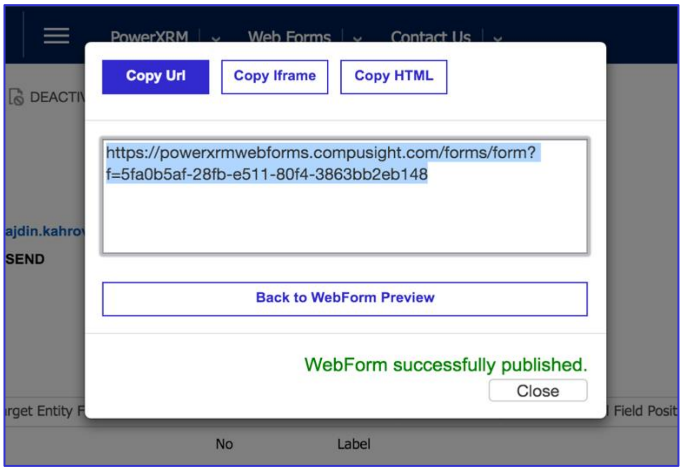
FIRST NAME

LAST NAME

WebForm successfully published.

Figure 16 - Dialog after "Publish" button is clicked

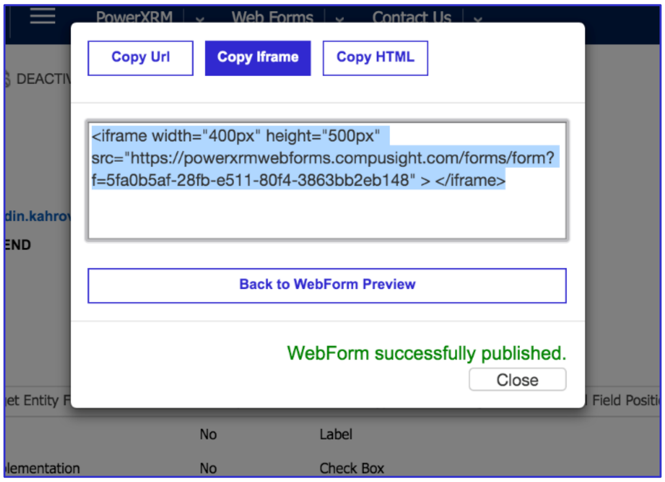
Alternatively, the WebForm can be taken and deployed as HTML content directly. When the button "Copy as HTML" is clicked, it copies all HTML content of the WebForm, embedded into <div> HTML tag, to the CRM user's clipboard. Next, HTML content can be directly injected into the HTML of the website. However, it is not recommended, because, when the updates are made to the WebForm, they will not be automatically applied to the WebForm and deployed to the website, as it is the case with deploying it as iframe or URL (please refer to section "Updating and deleting Web Form" for further details). The same scenario is with deleting theWebForm, when copied as HTML content, it will not be removed automatically from the websites. The major advantage of copying WebForm as HTML content is that, when deployed to the parent website, it will automatically inherit all CSS properties and JavaScript events from the parent website, and that is not the case when the WebForm is embedded as iframe to the website.



https://powerxrmwebforms.compusight.com/forms/form?f=5fa0b5af-28fb-e511-80f4-3863bb2eb148

WebForm successfully published.

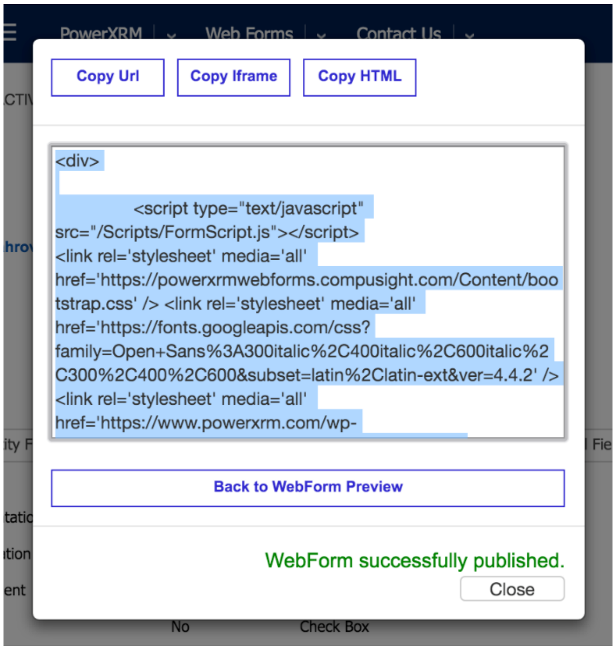
Figure 17 - Dialog after "Copy Url" button is clicked



```
<iframe width="400px" height="500px" src="https://powerxrmwebforms.compusight.com/forms/form?f=5fa0b5af-28fb-e511-80f4-3863bb2eb148" > </iframe>
```

WebForm successfully published.

Figure 18 - Dialog after "Copy Iframe" button is clicked



```
<div>

            <script type="text/javascript"
src="/Scripts/FormScript.js"></script>
<link rel='stylesheet' media='all'
href='https://powerxrmwebforms.compusight.com/Content/boo
tstrap.css' /> <link rel='stylesheet' media='all'
href='https://fonts.googleapis.com/css?
family=Open+Sans%3A300italic%2C400italic%2C600italic%2
C300%2C400%2C600&subset=latin%2Clatin-ext&ver=4.4.2' />
<link rel='stylesheet' media='all'
href='https://www.powerxrm.com/wp-
```

WebForm successfully published.

Figure 19 - Dialog after "Copy HTML" button is clicked

Another very important WebForm feature is Spam protection or Captcha, when deploying WebForm as HTML content. As it was explained under section: "Setting up WebForm attributes", XRM.WebForm uses Google's reCAPTCHA (https://www.google.com/recaptcha/intro/index.html).

In order for reCAPTCHA to work properly, it needs a valid API key from Google and Google requires list of all domains where its reCAPTCHA will be embedded. Embedding reCAPTCHA in websites deployed on a domain out of that list will result in an Error. Domain of XRM.WebForm where all Web Forms are deployed has been registered and all captchas on Web Forms used as iframe or URL will work properly. However, if the WebForm that contains Captcha is going to be taken and used as HTML content embedded into website, it needs to have a valid API key. An API key with a registered domain of the website where the WebForm will be deployed. In order to register a domain and get a valid API key, a CRM user should have a valid Google's account and visit the following URL:

https://www.google.com/recaptcha/intro/index.html

In the case of Captcha presence on the Web Form, after "Copy as HTML" button is clicked, the field for entering API key will appear. After obtaining a valid API key from Google, it should be marked into this field. HTML content will be copied to clipboard only after entering a valid API key and pressing the "OK" button. XRM.WebForm will make sure of embedding that API key into HTML content in a right way.

Tracking WebForm Submissions

When the WebForm is deployed to the website, whether as anchor, iframe or HTML content, it becomes available for all website visitors. Any of them can come to the website, fill the WebForm down and click on the Submit button. From website visitor's perspective, WebForm submission results in an action specified when the WebForm is created, removing values from all fields, and redirecting to a page with Submit message or redirecting to a certain URL straightforward.

However, from CRM user's perspective, variety of steps occur in that process. The greatest advantage of XRM.WebForm is that it is hidden from website's visitor. Even if an error occurs, it is hidden from the WebForm user and the the submission with all its steps will go well. Those steps include:

- attempt to create entity record based on data submission, creating WebForm Activity in order to track submissions and receiving Email notifications under certain circumstances.
  Each of these steps is described in following chapters

Creating Entity Record

All submitted data is preserved within XRM.WebForm, whether an entity record is successfully created or not, the submitted data is never lost. If the entity record is successfully created, it can be found on the views of that entity. For instance, if the WebForm has Lead as target entity, when the WebForm is submitted, a new Lead record is created and it can be found on the views of the Lead entity. When the form of that entity record is open, the activity that created that record is visible under "Activities". It is provided whose credentials (what CRM user) were used on that WebForm and when the entity record is created. It also has link to WebForm Activity that can be open on double click (this is explored in further details in the next chapters).

Note: in certain rare occasions, it might happen that the entity record is not created. Those situations include some of following:

Microsoft Dynamics CRM instance is not available, entity meta-structure has changed (fields removed, entity deleted…), CRM users who gave their credentials for creating entity records changed their credentials, etc. In that case, WebForm Activity will not be created because that is seen as one transaction. However, the submitted data is not lost in that scenario: WebForm CRM users will receive Emails with the description of error and submitted data.

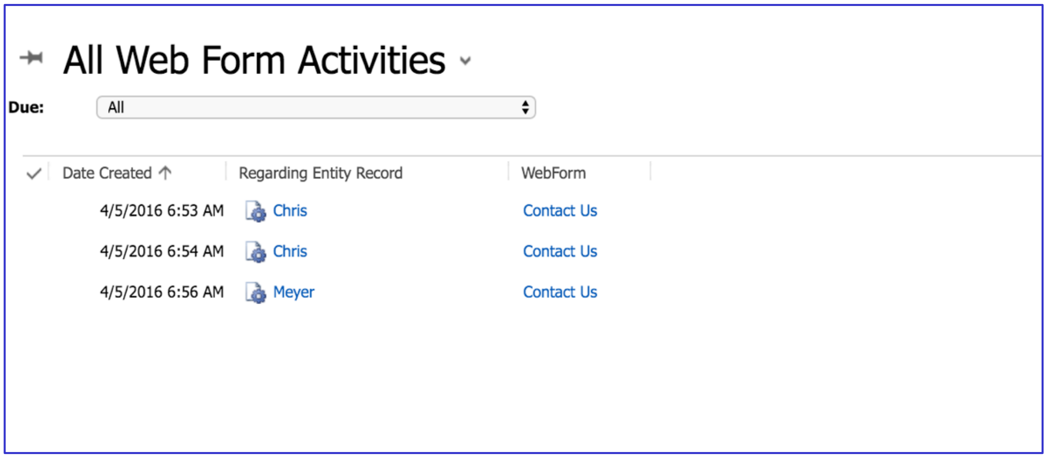
WebForm Activity

"WebForm Activity" is constantly created with the entity record. Each WebForm Activity represents one WebForm submission and therefore contains the data that describes that submission:

- what WebForm that Activity is associated with
- when the WebForm is submitted, what entity record is created
- when that entity record is created (in case of a standard procedure, it will be the same time as the time of WebForm submission, in case of errors, it may be postponed)
- whose credentials were used to create entity record
- It also has the list of WebForm Activity Details, where each detail represents one field of that Web Form, accompanied with the submitted value

As mentioned in previous chapters, WebForm Activity can be accessed by going to entity record created by WebForm submission and displaying WebForm Activity from there. However, CRM users will not know what entity record is created by what WebForm (especially if there are several WebForms with the same referencing entity) and what entity record is created manually. Like this, WebForm Activities can be retrieved from their views (just as any other Dynamics CRM entity) and then, target entity record can be extracted and displayed. The view can be accessed from "PowerXRM" area on the sitemap:

Each WebForm Activity contains the set of data answering questions: who, when and which entity record. Besides those, on the form of WebForm Activity, sub-grid containing all Activity details is visible. Each detail represents the pair of WebForm's field and the submitted value in that field. By clicking on any of the records in that sub-grid, form of that Detail will open containing data about submitted field value.

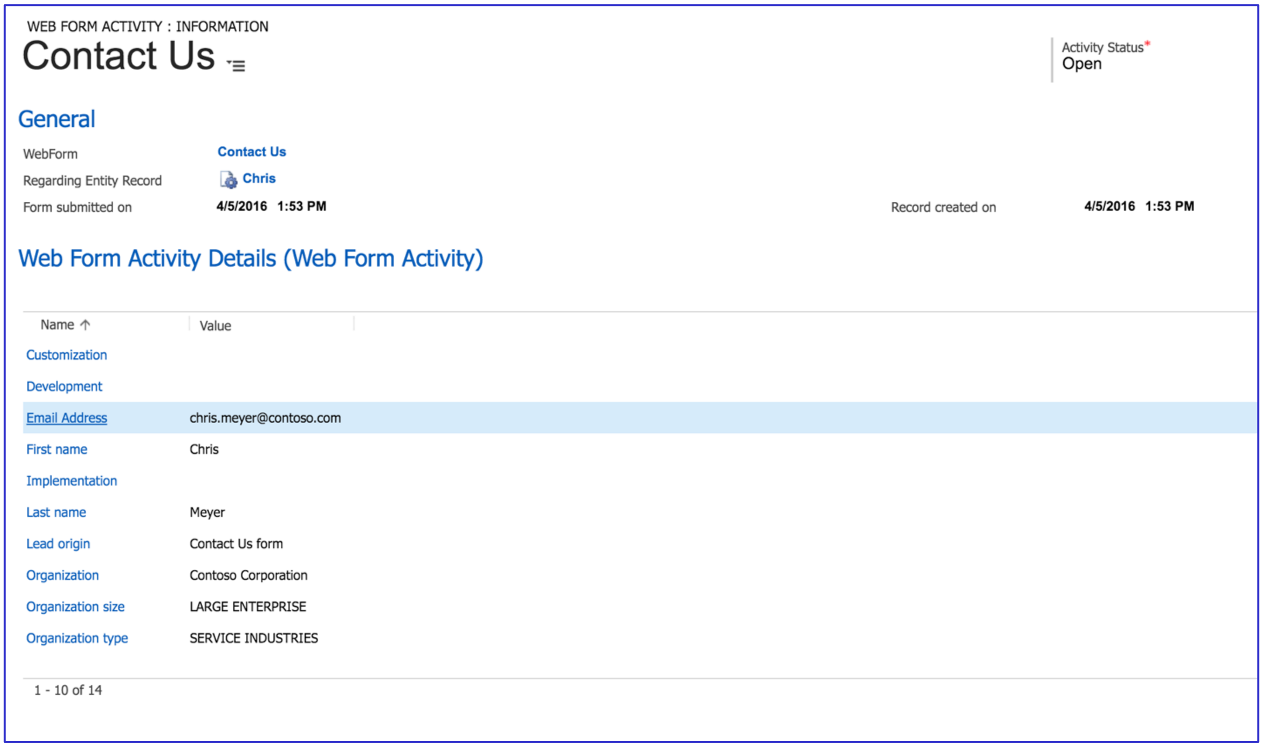


All Web Form Activities

Due: All

Date Created	Regarding Entity Record	WebForm
4/5/2016 6:53 AM	Chris	Contact Us
4/5/2016 6:54 AM	Chris	Contact Us
4/5/2016 6:56 AM	Meyer	Contact Us

Figure 20 - All WebForm Activities



WEB FORM ACTIVITY : INFORMATION

Contact Us

Activity Status*
Open

General

WebForm	Contact Us		
Regarding Entity Record	Chris		
Form submitted on	4/5/2016 1:53 PM	Record created on	4/5/2016 1:53 PM

Web Form Activity Details (Web Form Activity)

Name ↑	Value
Customization	
Development	
Email Address	chris.meyer@contoso.com
First name	Chris
Implementation	
Last name	Meyer
Lead origin	Contact Us form
Organization	Contoso Corporation
Organization size	LARGE ENTERPRISE
Organization type	SERVICE INDUSTRIES

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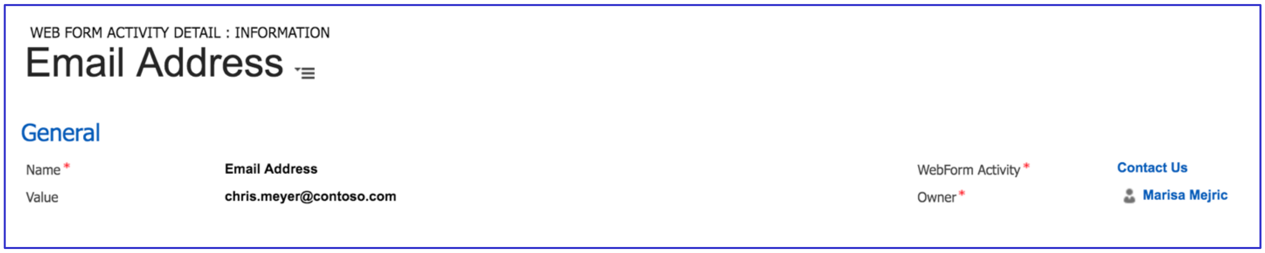
Figure 21 - WebForm Activity



WEB FORM ACTIVITY DETAIL : INFORMATION

Email Address

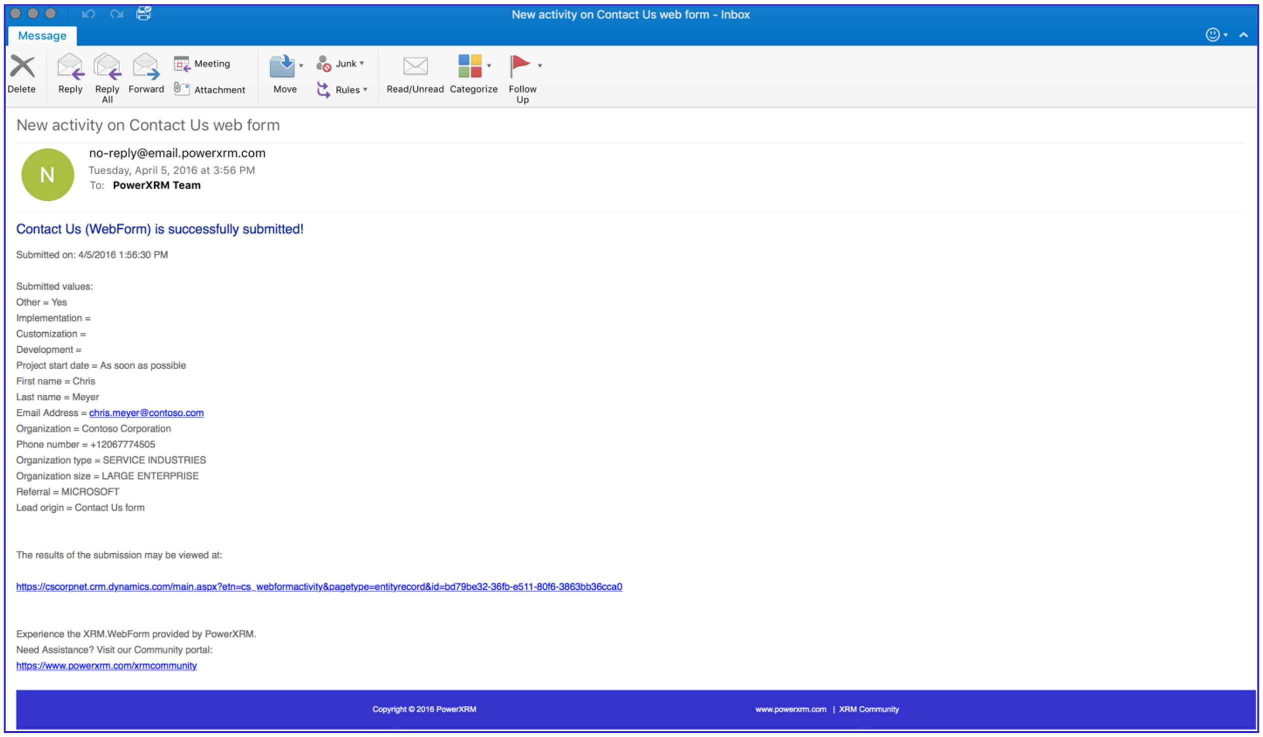
General

Name*	Email Address	WebForm Activity*	Contact Us
Value	chris.meyer@contoso.com	Owner*	Marisa Mejric

Figure 22 - WebForm Activity Detail Form

Email Notifications

When the WebForm is created and configured, if the correct e-mail address is written in the field “Set-up email address notifications”, that Email address will receive an e-mail after each WebForm submission. Email content will contain the data and time of the submission, list of submitted values and the URL of WebForm Activity associated with that WebForm submission. In the case that Email address was not provided, Email notifications will not be sent after successful submissions.



New activity on Contact Us web form

no-reply@email.powerxrm.com
Tuesday, April 5, 2016 at 3:56 PM
To: **PowerXRM Team**

Contact Us (WebForm) is successfully submitted!

Submitted on: 4/5/2016 1:56:30 PM

Submitted values:
Other = Yes
Implementation =
Customization =
Development =
Project start date = As soon as possible
First name = Chris
Last name = Meyer
Email Address = chris.meyer@contoso.com
Organization = Contoso Corporation
Phone number = +12067774505
Organization type = SERVICE INDUSTRIES
Organization size = LARGE ENTERPRISE
Referral = MICROSOFT
Lead origin = Contact Us form

The results of the submission may be viewed at:

https://cscorpnet.crm.dynamics.com/main.aspx?etn=cs_webformactivity&pagetype=entityrecord&id=bd79be32-36fb-e511-80f6-3863bb36cca0

Experience the XRM.WebForm provided by PowerXRM.
Need Assistance? Visit our Community portal:
https://www.powerxrm.com/xrmcommunity

Copyright © 2016 PowerXRM   www.powerxrm.com | XRM Community

Figure 23 - New Activity on WebForm - Successful Email submission

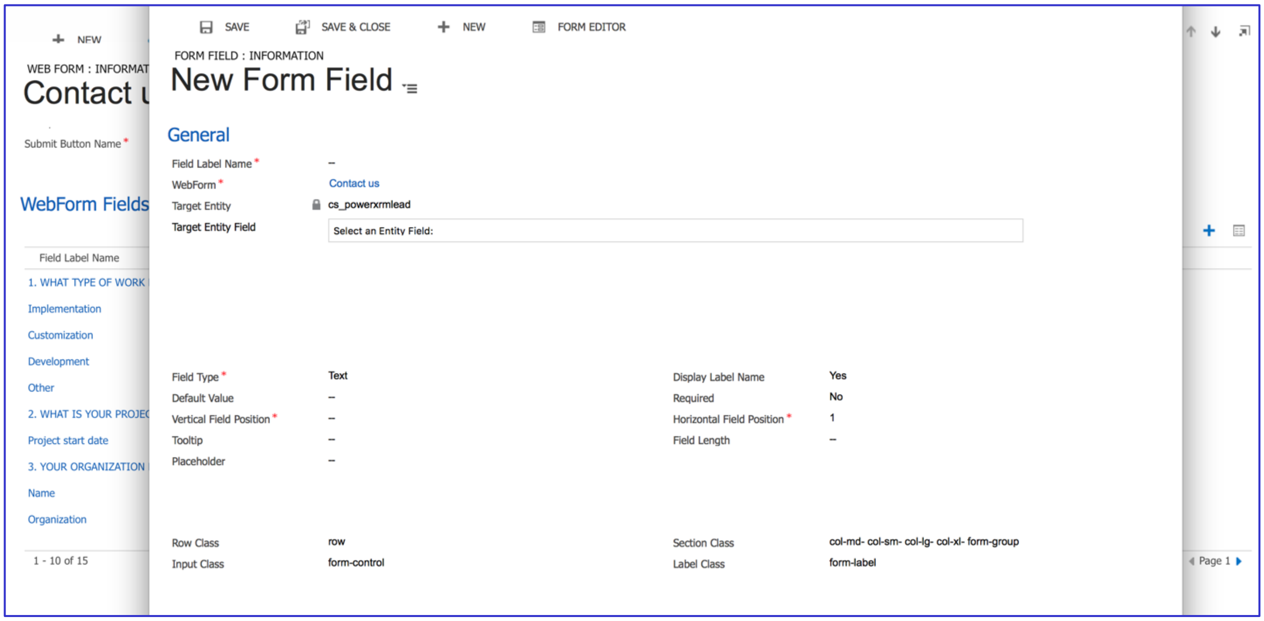
If the submission fails for any reason (Microsoft Dynamics CRM instance is not available, entity meta-structure is changed: fields removed, entity deleted…, user who gave his/her credentials for creating entity records changed their credentials, etc.), the Email will be sent to the specified Email address with the data and the time of WebForm submission, the list of submitted values and the reason entity record creation failed. In the case that submission fails and the Email address was not provided, an Email with previously described content will be sent to the Email address used for registration on www.powerxrm.com.

Updating and Deleting WebForm

XRM.WebForm allow users to easily update and completely remove existing Web Forms, regardless to whether they are deployed or not.

Updating WebForm

In order to update the WebForm, the form needs to be accessed. It can be done by selecting "PowerXRM" from sitemap and clicking on "WebForms" entity. That would lead to the default view of WebForms. Double-click on the WebForm that needs be edited will open its form.



FORM FIELD : INFORMATION

New Form Field

General

Field Label Name * –
WebForm * Contact us
Target Entity cs_powerxrmlead
Target Entity Field Select an Entity Field:

Field Type * Text
Default Value –
Vertical Field Position * –
Tooltip –
Placeholder –

Display Label Name Yes
Required No
Horizontal Field Position * 1
Field Length –

Row Class row
Input Class form-control
Section Class col-md- col-sm- col-lg- col-xl- form-group
Label Class form-label

Figure 24 - Adding a new Field on the WebForm

On that form, changing values of WebForm's attributes, adding new Form Fields, changing or removing existing ones can be made. However, saving the form would not automatically update the existing form. When all necessary updates are done, "Preview and Deploy" button from the ribbon should be clicked and it will open a popup dialog, similar to one opened when the WebForm is created for the first time.

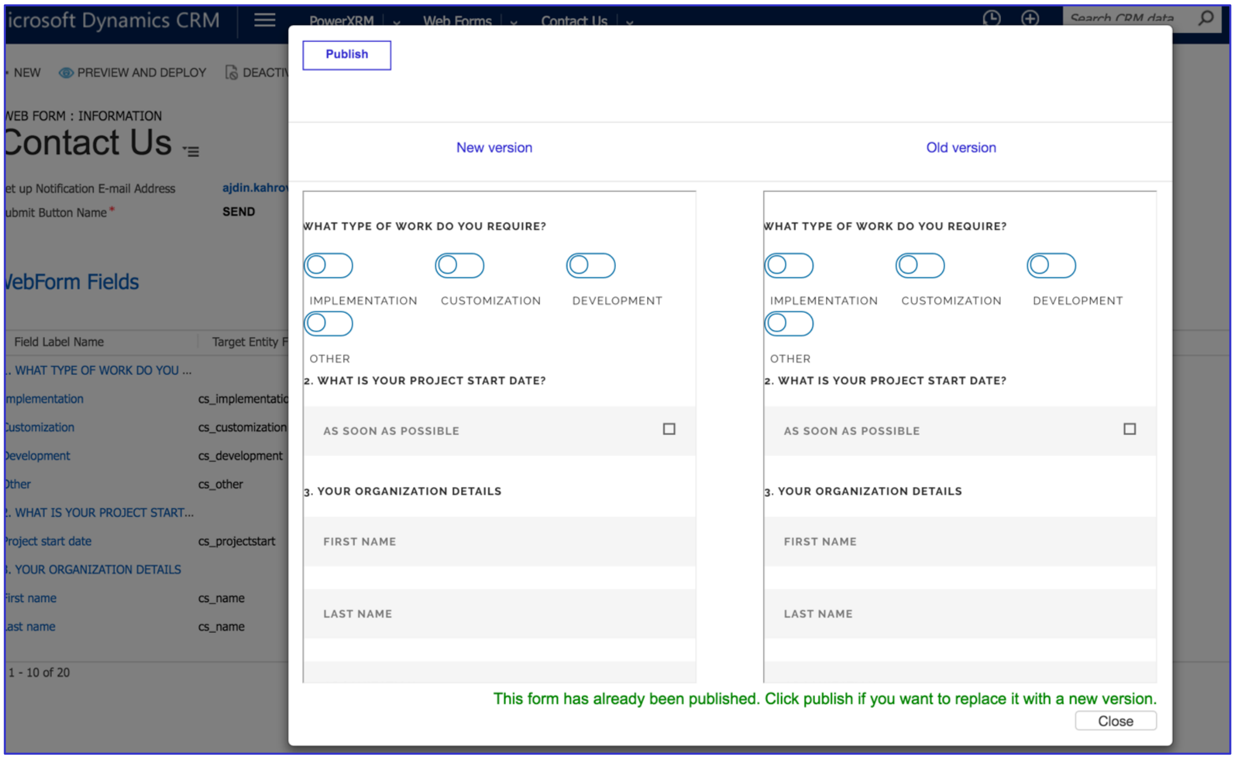
If the WebForm wasn't published before, the popup dialog will look like if the WebForm is just created. If it looks acceptable, it can be published by clicking on the "Publish" button. Otherwise, the popup dialog can be closed and new changes can be made to that WebForm.

If the WebForm has already been published, two Web Forms will be visible:

1. the one already published, with its unique URL that actually represents the original version of that WebForm
2. the new one that reflects the changes made to the Web Form

Two versions can be compared and if the updates are acceptable, button "Publish" should be clicked. Otherwise, popup dialog should be closed and new changes can be made to the WebForm.

If "Publish" button isn't clicked, none of the new changes will apply to the existing WebForm. It is only a preview of the changes made and an opportunity to compare those changes to the original version of the WebForm.



Field Label Name	Target Entity F
. WHAT TYPE OF WORK DO YOU ...	
mplementation	cs_implementatic
Customization	cs_customization
Development	cs_development
Other	cs_other
. WHAT IS YOUR PROJECT START...	
Project start date	cs_projectstart
. YOUR ORGANIZATION DETAILS	
First name	cs_name
ast name	cs_name

This form has already been published. Click publish if you want to replace it with a new version.

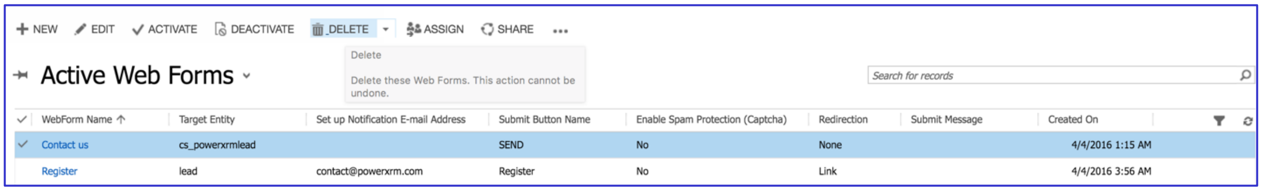
Figure 25 - Old and New Version

If the “Publish” button is clicked, the WebForm will be deployed and URL and HTML of that WebForm will be generated. If the WebForm has been published previously, the old version of the WebForm will be automatically replaced with the newer one. When the URL of the old WebForm has been visited, the updated version will be displayed. This means that, if the WebForm was deployed to the website as the anchor to URL or as an iframe, the WebForm on that website will be automatically replaced. On the other side, if the WebForm was deployed as HTML (by incorporating <div> element with HTML to the website), automatic updates will not occur. In that case, the button “Copy as HTML” should be clicked and new HTML should be manually placed on the website.

Deleting WebForm

WebForm can be easily deleted and that would lead to its complete removal. It can be deleted as any other CRM entity record:

- visiting the view of the WebForm (selecting "PowerXRM" from sitemap and clicking on "WebForms" entity), selecting the right WebForm record that wants to be deleted and clicking on the "Delete" button on the ribbon. An alternative procedure is to open the WebForm's form and then to click on the "Delete" button. In any case, that WebForm with all appending Form Field entity records will be deleted from CRM. On the other side, deleting WebForm will not cause deleting WebForm Activities related to that WebForm and specifically not entity records created by submissions of that Web Form.



Active Web Forms

Delete

Delete these Web Forms. This action cannot be undone.

WebForm Name	Target Entity	Set up Notification E-mail Address	Submit Button Name	Enable Spam Protection (Captcha)	Redirection	Submit Message	Created On
Contact us	cs_powerxrmlead		SEND	No	None		4/4/2016 1:15 AM
Register	lead	contact@powerxrm.com	Register	No	Link		4/4/2016 3:56 AM

Figure 26 - View with marked "Delete" button

Deleting WebForm will remove the web form completely. The URL used to access the WebForm will become invalid after deleting the WebForm from CRM. If the WebForm was deployed to the website as iframe or anchor, it will be invalid on the website as well and that iframe or anchor should be removed from the website (WebForm will not be visible on the website after deleting it from CRM). On the other side, if the WebForm was deployed by copying its HTML to the website, the WebForm will still be visible on that website, but submissions will not work, and each time the WebForm is submitted, a browser will show the error to users and neither entity record will be created nor an Email will be sent. Therefore, deleting the WebForm should be performed carefully: when it is deleted from CRM, all traces of its existence on all websites should be completely removed.

XRM.WebForm Pro features

XRM.WebForm Pro solution contains all features of XRM.WebForm (Basic) version. Everything that is supported in basic version is also available in Pro version. Besides previously explained features, Pro version includes following features as well:

- New types of WebForm fields
- Passing values to WebForm Fields using URL (Slugs)
- Related Entity Lists
- Sub Forms
- Server-side reCAPTCHA validation

Each of the features is explained in detail in this section.

Additional types of WebForm Fields

With XRM.WebForm PRO, following types of WebForm Field are introduced:

- Password
- File Upload
- Validation Message

While the Password type of WebForm Field represents small improvement, File Upload is a major feature of Pro version of XRM.WebForm. Validation message is not a real Field, but rather a place on the WebForm for displaying validation messages to the WebForm visitors. We will explore each of them in this section.

Password

Password type is the simplest type added. WebForm field with this type will be displayed as masked field on the WebForm – it will be text field in which characters are not displayed, but rather masked with dots, asterisks or with any other symbol, depending on the browser. This type can be used for keeping security sensitive data such as passwords. Other options on the WebForm Field (those under section “WebForm Field Details”) that are dependent of the type are the same as in case of Text type.

Validation Message

Validation Message is essentially the place on the WebForm for previewing validation/error messages. Certain XRM.WebForm PRO features allow WebForm editor to set specific rules such as:

- Minimum and maximum number of records to be related to main record on the Related Entity Lists
- Minimum and maximum number of records to be created and related to main record on the Sub Forms
- Maximum size of files to be uploaded on File Uploaders

If the WebForm visitor attempts to submit the WebForm which violates any of these rules, they will be disabled to do so and the appropriate message will be displayed in the WebForm Field(s) that has type set to validation message. Currently, the message text is fixed, but in next versions it should become available for editing by WebForm editor.

Every validation message that appears will be, by default, in red color and will fade out after 4 seconds. Its appearance is defined by class selector “validation-message”, but as any other WebForm Field, any other class selector can be added and even this one can me modified and adapted to the look & feel of the parent website. By default, validation message field does not take any space on the WebForm until validation message appears. When it comes to options of WebForm Field that has type set to validation message (these options are managed under “WebForm Field Details” section), the only available are Row and Column – WebForm editor can only determine the position of this field on the WebForm. Additionally, WebForm Field with this type cannot have target entity field.

By default, when any WebForm is created, one validation message field will be added, in addition to all business required fields that are added. This field will be positioned in row 100, assuming that it will be the last place before the Submit button. That field can be modified and removed, just as any other WebForm Field. Even though it does not make sense, WebForm editor can add several Validation Message WebForm Fields to the WebForm. Validation messages will be displayed in each of them. Also, WebForm editor can decide not to have place for validation messages at all on the WebForm. In that case, if any of previously mentioned rules are violated by the WebForm visitor, submission will still be disabled, but no message will be displayed.

File Upload

File Upload type of the WebForm Field is one of the major features of XRM.WebForm PRO. It allows placing file uploaders on the WebForm. Files being uploaded through those file uploaders are saved in the CRM in form of the Notes and are attached to the record created with that submissions. Attached files are also attached to the e-mail notification sent to the e-mail of WebForm editor.

File uploaders are added as any other WebForm Field to the WebForm. They are chosen by selecting value "File Upload" under the Type dropdown on the form of the WebForm Field. In order to have this type on the dropdown, target entity field should be blank. When "File Upload" type is selected, target entity field will not be available any more. Also, several options for additional configuration of the WebForm Field (those under "WebForm Field Details" section), such as Default Value, Placeholder or Length, will not be available as they do not have sense for the file uploaders. Another three options will appear:

Attach To Record

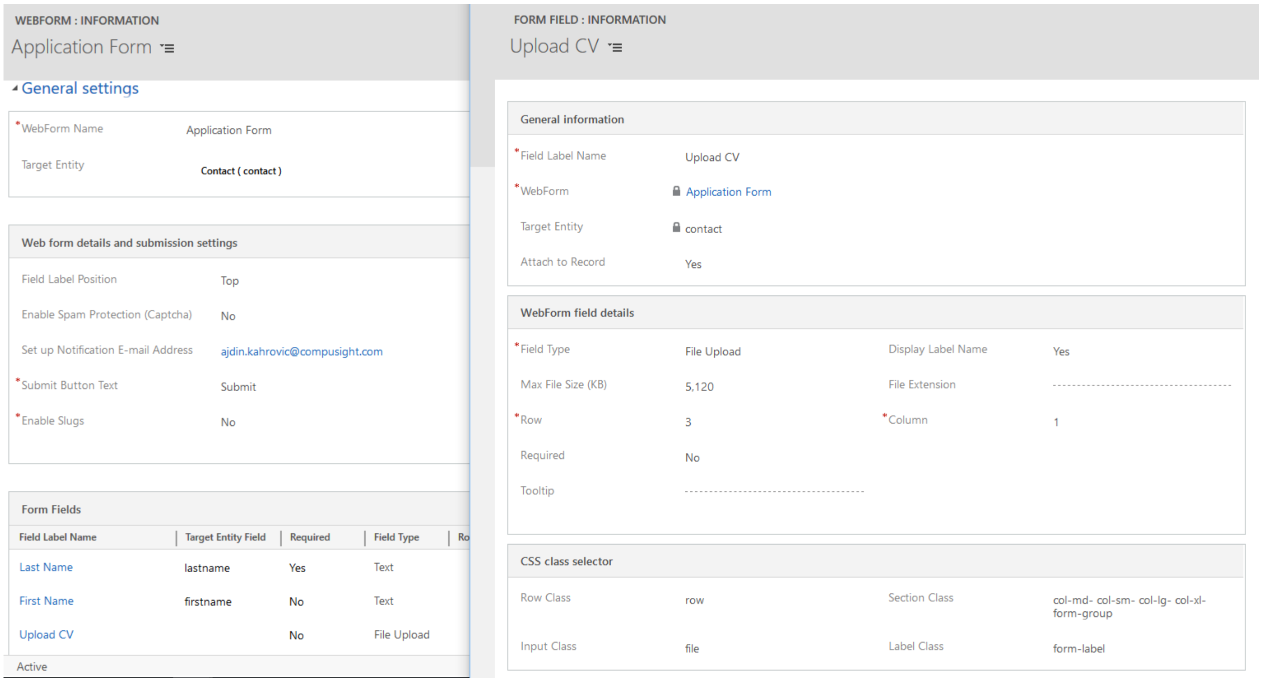
True/False value that determines whether the file uploaded through this file uploader will be saved in CRM as a Note and attached to the record created. If "No" is selected, then the file will be attached to the e-mail notification if the e-mail address for notifications is set, or otherwise, file uploader will be present on the WebForm and the attached file will be ignored.

Max File Size (KB)

Value entered in this field will limit the maximum size of the file that the WebForm visitor can upload using this file uploader. Maximum size of the file, allowed by XRM.WebForm is 7168 KB (7 MB). Additionally, if the "Attach To Record" option is set to "Yes", organization settings are checked for additional limitation. Within the System Settings (Settings -> System -> Administration -> System Settings), under the tab Email, there is a field named as "Maximum file size (in kilobytes)" which defines the maximum size of the Note in the CRM. Default value is 5120 and can be changed to any other value by the system administrator. Therefore, maximum file size of the file uploader is limited by 7168 KB and by this organization specific limit in the case that the file will be stored in CRM ("Attach To record" is set to "Yes"). That value will be also the default value of this field. Therefore, WebForm editor can additionally decrease (which is highly recommended) the maximum file size, but cannot increase it to the value larger than the default one. If the field is left blank than the default value will be taken as the maximum file size. In any case, it must be specified, it must satisfy all aforementioned rules and WebForm visitor cannot upload the file larger than that value.

File Extension

This field allows WebForm editor to specify default filters of the files on the dialog for selecting the files from the WebForm visitor's computer. If a file extension is specified here (for instance, .pdf), when the WebForm visitor opens the dialog to select the file, the dialog will only show, by default, files with that file extensions (in this case, only PDF files). However, the WebForm visitor may change the filter and upload the file of any type and with any extension. This means that this only defines default filter and it does not oblige WebForm visitor to actually select the file with specified extension. Additionally, several file extensions could be specified and they should be comma-separated. Also, do not forget to add dot before every file extension. Correct example would be: ".pdf,.docx,.xlsx", while this would be incorrect: "pdf,docx,xlsx". Incorrect value specified in this field will be ignored.



WEBFORM : INFORMATION

Application Form

General settings

*WebForm Name	Application Form
Target Entity	Contact (contact)

Web form details and submission settings

Field Label Position	Top
Enable Spam Protection (Captcha)	No
Set up Notification E-mail Address	ajdin.kahrovic@compusight.com
*Submit Button Text	Submit
*Enable Slugs	No

Form Fields

Field Label Name	Target Entity Field	Required	Field Type	Ro
Last Name	lastname	Yes	Text	
First Name	firstname	No	Text	
Upload CV		No	File Upload	

Active

FORM FIELD : INFORMATION

Upload CV

General information

*Field Label Name	Upload CV
*WebForm	Application Form
Target Entity	contact
Attach to Record	Yes

WebForm field details

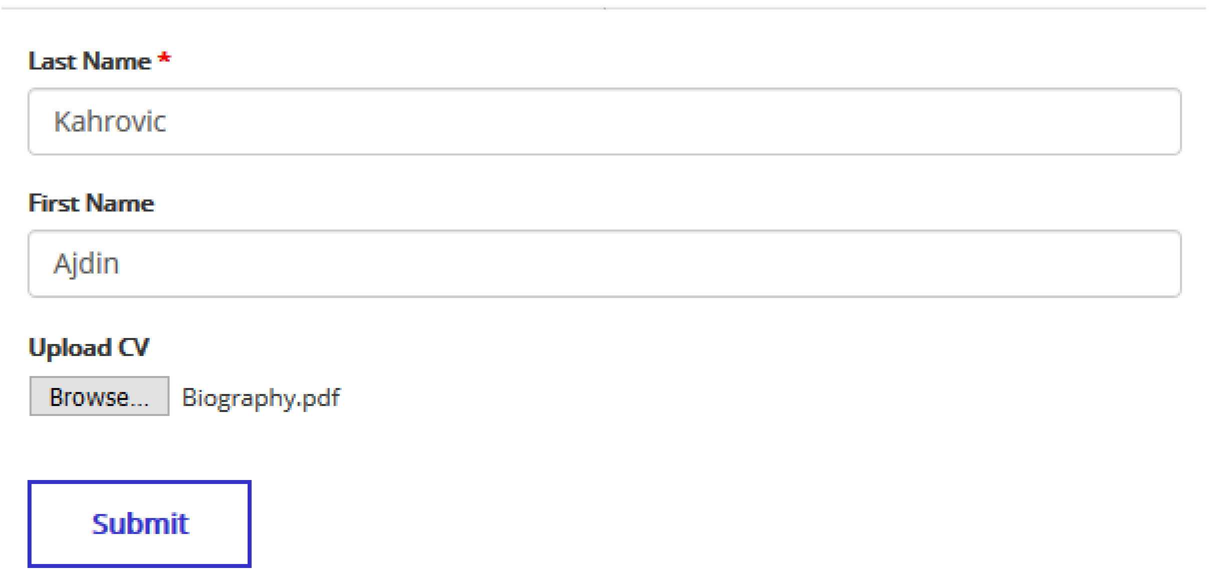
*Field Type	File Upload	Display Label Name	Yes
Max File Size (KB)	5,120	File Extension	-----------------------------------
*Row	3	*Column	1
Required	No		
Tooltip	-----------------------------------		

CSS class selector

Row Class	row	Section Class	col-md- col-sm- col-lg- col-xl- form-group
Input Class	file	Label Class	form-label

Figure 27 - File Upload WebForm Field

WebForm Fields with type set to "File Upload" has appearance as a typical HTML file uploader. If the WebForm visitor attempts to submit the WebForm with the uploaded file larger than the maximum file size specified, they will get validation message in Validation Message Field(s) and they will be prevented from submitting the WebForm. After the WebForm is submitted, alongside the created record, the file will be stored in CRM as a Note with the name set to the file name and that Note will be attached to the newly created record.



Last Name *

Kahrovic

First Name

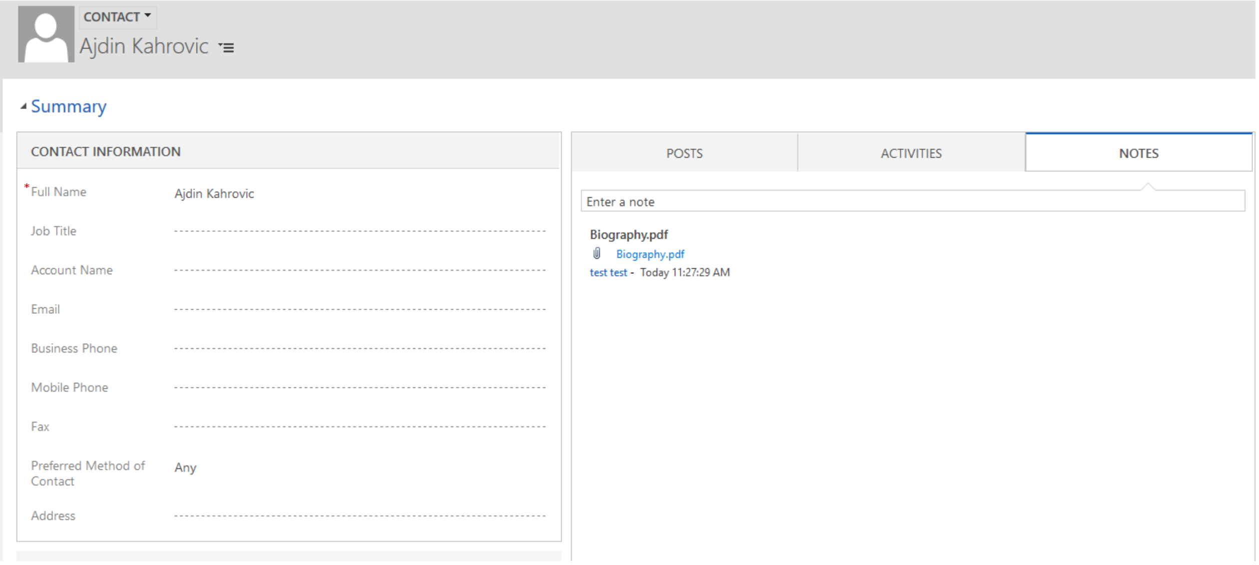
Ajdin

Upload CV

Biography.pdf

Figure 28 - File Upload Field on the WebForm

When it comes to the tracking of the submission, uploaded files can be tracked using WebForm Activity and the e-mail notifications. In the WebForm Activity, under Details subgrid, there will be a row for the file uploader, just as any other WebForm Field, with the name corresponding to the name of WebForm Field and the value corresponding to the name of the uploaded file. If the e-mail notifications are set, uploaded file(s) will be sent as attachments to that e-mail. Also, on the list of submitted values, next to the name of the file uploader WebForm Field, there will be the name of the uploaded file.



Ajdin Kahrovic

CONTACT INFORMATION

*Full Name	Ajdin Kahrovic
Job Title	
Account Name	
Email	
Business Phone	
Mobile Phone	
Fax	
Preferred Method of Contact	Any
Address	

Enter a note

Biography.pdf
Biography.pdf
test test - Today 11:27:29 AM

Figure 29 - Created record with uploaded file attached as a note

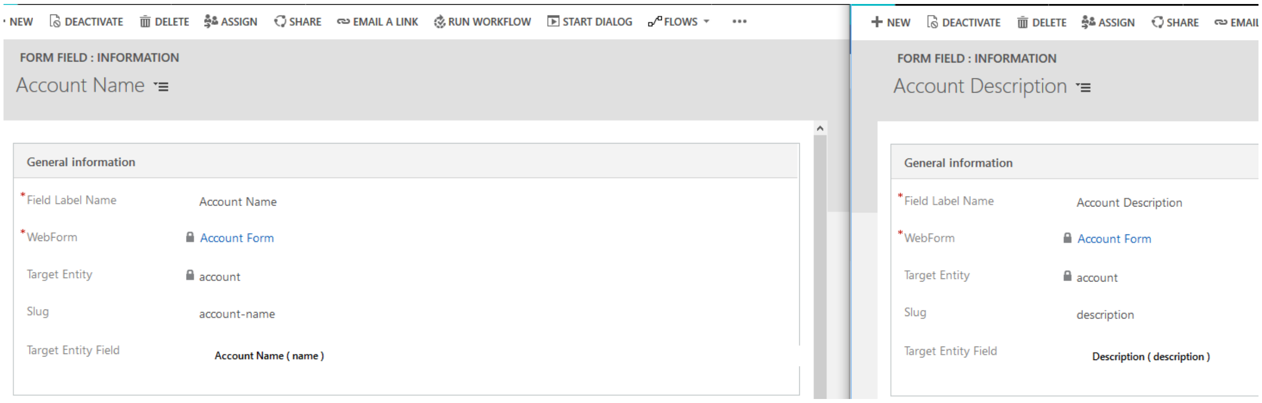
Slugs

Slug feature is delivered with the purpose to enable setting default values of WebForm Fields using URL of the WebForm. Slug represents unique readable Id/Name of the WebForm Field that can be embedded within the URL of the WebForm as a query parameter. If a WebForm Field 1 has slug value set to “slug1” and if the WebForm is loaded with the query parameter “slug1=value1”, then the default value of WebForm Field1 will be set to “value1”, when the WebForm loads. The purpose of this feature is to dynamically set the default value, depending on the context in which the WebForm loads, as it can be injected on the WebForm via URL. The major usage of this would be to pass some information to hidden fields on the WebForm, such as Id or Name (if the WebForm visitor is not anonymous) or even IP address of the WebForm visitor who submits the WebForm. Also, it allows certain customizations on the WebForm depending on the information about the visitor. For instance, “Country” dropdown field on the WebForm can be set to specific default value based on the IP address of the WebForm visitor. These two are just small illustrations of numerous use cases of this powerful feature.

Enabling slugs is done on the form of the WebForm within Dynamics CRM. Under section “WebForm details and submission settings”, there is two options (true/false) field named as “Enable slugs” with default value is “No”. Changing it to “Yes” will allow setting slug names to WebForm Fields. Additionally, this will allow adding slug names as query parameters to the WebForm URL. If this option is not set to “Yes” and if the WebForm URL is called with the slug query parameters, it will redirect to error page stating that the WebForm does not exist.

If “Enable slugs” is set to “Yes”, then forms of the WebForms Fields will get additional field under “General information” section. It will be automatically populated with the value based on the name of the WebForm Field. With every change of the Name, Slug will be changed as well. It will be created as URI encoded component, meaning that it will encode special characters, blank spaces will be changed with “-“ character and uppercase letters will be changed with lowercase letters. WebForm editor can manually change slug to whatever value they want and it will be changed with the save event to satisfy beforementioned rules for slugs. There are two additional rules for slugs: first rule is that slug name must be unique across WebForm Fields of a single WebForm. Therefore, two WebForm Fields within the same WebForm cannot have the same slug name. Second rule is that slug name cannot be any of reserved keywords and those are: f, sf, message, edit, record, swf, sr, preview, token. Any other value is permitted. Slug defined here will become unique readable identifier of the WebForm Field and can be used as a query parameter to specify default value of the WebForm Field.

Let’s see one simple example to illustrate this feature. We will create WebForm named as “Account Form” and set target entity to Account. We will set “Enable Slugs” to “Yes”. When we save it, two WebForm Fields will be automatically generated. We will open Account Name field and in Slug field will be automatically set to “account-name”. We will need to save and close it. Let’s create another field with the name “Account Description” targeting Description field of Account. As we set the name, Slug field is automatically populated with the value “account-description”. We will change it to “description” and save it.



FORM FIELD : INFORMATION
Account Name

General information

*Field Label Name	Account Name
*WebForm	Account Form
Target Entity	account
Slug	account-name
Target Entity Field	Account Name (name)

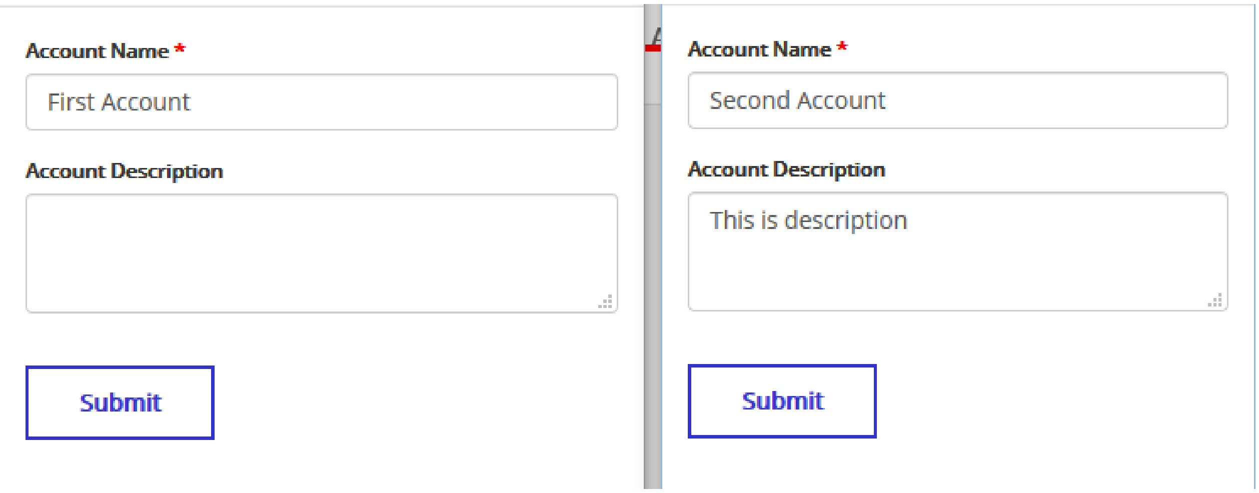
FORM FIELD : INFORMATION
Account Description

General information

*Field Label Name	Account Description
*WebForm	Account Form
Target Entity	account
Slug	description
Target Entity Field	Description (description)

Figure 30 – Specifying slugs for WebForm Fields

When the WebForm is deployed, you can choose between three deployment options: “URL”, “Iframe” and “HTML”. If you choose URL or Iframe, you will get the URL of the WebForm, looking like this: https://powerxrmwebforms.compusight.com/forms/form?f=d26bbeca-e125-e811-a951-000d3a36478d. On the left, we will show how it is displayed with the URL /forms/form?f=d26bbeca-e125-e811-a951-000d3a36478d&account-name=First Account and on the right, with the URL /forms/form?f=d26bbeca-e125-e811-a951-000d3a36478d&account-name=Second Account&description=This is description


Account Name *
First Account
Account Description

Account Name *
Second Account
Account Description
This is description

Figure 31 – Specifying WebForm Fields' default values using URL and slugs

Related Entity Lists

Related Entity Lists are PRO feature that enables exposing CRM data to the WebForm. Records of any entity which is a relationship with the target entity of the WebForm can be exposed to the WebForm and WebForm visitor can select some of them. When the WebForm is submitted and the record created, selected records of the related entity will be associated with the newly created record. This is powerful feature allowing WebForm editors to manage data visible on their website through the CRM and it allows creation of richer WebForms which collect incomparably wider set of data about WebForm visitors. The feature is very customizable, as it will be explained in this section of the guide, allowing WebForm editor to select records or specify conditions, to specify the set of fields of those records, to choose on its appearance on the WebForm and whether the data will be pulled automatically from CRM. Potential use case scenario is the WebForm having a checkbox list with all company's products in which the WebForm visitor selects products they are interested in. Another case is the WebForm containing the table with company's offices and the WebForm visitor chooses in which office they will follow up on the only application. There are numerous other examples of Related Entity Lists use cases, all of them empowering businesses to gather wider and more complex information from their website about their leads and customers and storing them in a very easy and systematic way in CRM.

Configuration

Related Entity Lists are added to the main Web Form similarly as WebForm Fields, using the subgrid visible on the form of the WebForm. This subgrid is positioned below WebForm Fields subgrid. After the WebForm is saved at least once, click on the **" + "** button above the Related Entity Lists subgrid and a form for creating Related Entity List will open. Form consists of three tabs: General information, Related Entity Data and Related Entity Details.

The meaning of each field is as follows:

Label Name

Value entered into this field has two purposes. First purpose is to give a name to the Related Entity List that will be used within CRM for its identification. Second purpose is to give the label to the Related Entity List. It is the text that will be written next to the Related Entity List on the WebForm (its relative position to the Related Entity List will be determined by "Label position" attribute of the WebForm) if the "Display Label Name" is set to "yes".

Parent WebForm

Identifier for WebForm associated with the Related Entity List. It is read-only field.

Parent Entity

Entity which is target entity for the parent WebForm. It is also read-only field.

Relationship Type

First major step of adding Related Entity List is to determine which related entity will be used for this specific list of records. Relationship Type field is used to filter all relationships of Parent Entity, so it is easier to select appropriate relationship. Therefore, relationship Type is an option set containing three options: “1:N”, “N:1” and “N:N”. When the WebForm author selects one of three presented options, option set containing the list of relationships will only show relationships of selected type.

Record Retrieval

Option set that determines whether records will be transferred to the WebForm only when its deployed or they will be transferred every time the WebForm loads. It has two options “Static” and “Dynamic”, whereas the first one is a default one as well. If the static record retrieval is selected, it means that records selected for this specific Related Entity List will be placed on the WebForm when it is deployed and will not change until next redeployment of the WebForm happens. Changes in CRM records, such as adding new records, deleting or updating existing, will not reflect on the content of the WebForm. To reflect those changes on the WebForm, it needs to be redeployed (via “Preview & Deploy” button on the WebForm). On the other side, dynamic type of record retrieval means that the list of records will be dynamically populated each time WebForm loads in the WebForm visitor’s browser. If the records are changed or deleted, or new ones are added (and they satisfy conditions of Related Entity List), those changes will automatically reflect on the deployed WebForm.

Both options have pros and cons. Static record retrieval gives full control to WebForm editor over the CRM data displayed on the WebForm. They manually decide which records to display and which records to hide on the WebForm. On the other side, it might lead to appearance of deleted records on the WebForm which would consequentially lead to failed submissions. It might happen that some CRM user deletes a record which is displayed on the WebForm and it will not reflect automatically on the list of records on the WebForm. Then, WebForm visitor may select that deleted record and that submission will fail as XRM.WebForm will attempt to associate newly created record with the non-existing record.

When it comes to dynamic record retrieval, the greatest advantage is the consistency that lacks the static approach. It cannot occur that non-existing record is displayed on the WebForm as all records showing on the WebForm are up-to-date. Another advantage is an ease of management – all changes are automatically reflected on the WebForm and no additional steps are required on the WebForm itself. However, it might lead to accidental leakage of confidential data as CRM user can add or change CRM records, completely unaware that they will show up on the WebForm (if satisfying conditions of Related Entity List). Another disadvantage is that dynamic record retrieval requires that the WebForm is hosted on XRM.WebForm platform and deployed as an Iframe or URL. The reason is that HTML deployed WebForm (deployed on some website as HTML) will not be able to retrieve CRM records on load. Finally, we can say that both approaches, static and dynamic, are legitimate and the choice will depend on the business processes, confidentiality standards and deployment requirements.

Display Type

This option set determines how Related Entity List will look like on the WebForm. The set of options is dependent on the relationship type. If the selected relationship type is “1:N” or “N:N”, it means that multiple records of related entity can be selected and the possible options for Display Type are “Table” (each record is in one row), “Multiple Select” (appearing as a dropdown on the WebForm where several records can be selected) and “Checkbox List”. All of them allows selections of several records. On the other side, if the selected relationship type is “N:1”, it means that only one record of related entity can be selected. Therefore, possible options for Display Type will be “Table”, “Dropdown” and “Radio Button List”. All three of them allow WebForm visitor to select only one value/record. “Table” option is available in both cases, but in first one, WebForm allows WebForm visitor to select several rows in the table, while in the other case, it allows selection of only one row.

Related Entity (One To Many Relationship / Many To One Relationship / Many To Many Relationship)

A field with one of these three labels will appear under Related Entity Data tab. Which specific label will be written will depend on selected “Relationship Type”. Dropdown will contain the list of all relationships between parent entity and any other entity existing in the CRM organization which are relationships of selected relationship type (“1:N”, “N:1” or “N:N”). You can type the name of the relationship or related entity (it has autocomplete property) or you can select it from the dropdown list. If you create custom relationships, they will be also visible on this list. Each of the options in this dropdown is structured as “Related entity name (Relationship name)”. For instance, it can be “Contact (account_primary_contact)” for N:1 relationship between Account and (its primary) Contact.

Related Entity View

After selecting related entity, WebForm editor needs to select one of the views (saved queries) of that related entity. View can be selected from this autocomplete dropdown containing all views of selected related entity. View needs to be selected in order to define which records of related entity will be displayed on the WebForm. Since the view contains certain conditions for inclusion/exclusion of the records, all those conditions will also apply on the selection of records which will be displayed on the WebForm. The major difference between static and dynamic record retrieval is that, when static one is selected, records within selected view will be pulled only when "Related Entity View" is selected and those records will stay unchanged on the WebForm until new view is selected. On the other side, when dynamic record retrieval is selected, filter conditions of selected view will apply every time WebForm loads, so the records satisfying those conditions in the moment of loading will be retrieved. Besides filter conditions, view defines ordering of records and entity's fields that will be displayed. While ordering will be applied to the Related Entity List in any case, columns/fields of the view will be shown only if selected display type is "Table". Table will basically display whole selected view on the WebForm. Other display types: dropdown, multiple select, checkbox list and radio button list will only show one field for every record and that field is selected in Related Entity Field dropdown.

Related Entity Field

Related Entity Field is an autocomplete dropdown having the list of fields of related entity that are also part of selected view. This dropdown will only be visible if the selected "Display Type" is one of the following: dropdown, multiple select, checkbox list and radio button list. It is used to allow WebForm editor to specify which field will be used to represent the records on the WebForm. For instance, if the related entity is "Account", then the most logical choice of this field would be "Account Name", which would mean that all account records that will be displayed on the WebForm will be represented by Account Name field. It is necessary for all display types, except the table, as all of them require a single value for every option (for instance, the text next to the radio button). The table has ability to display more than one field for every record (as a table column), so selecting Related Entity Field does not make sense.

Related Entity Records

Under this section of the form of Related Entity Data, the table with the records will be displayed. The records will show up when WebForm editor selects Related Entity and Related Entity View. Basically, the whole view will be shown in this table. Records are divided in the pages and each page contains 5 records.

If the Related Entity Field is selected (under condition that “Display Type” is not set to table), this Related Entity Records table will be filtered in a way that it only shows one column representing selected field. This table is used to give a WebForm editor quick preview of data that will be placed on the WebForm. It can really help to make WebForm editor sure that they selected correct records and correct information (fields) about them.

Row

Vertical order of the field on the Web form (i.e. 1st, 2nd, 3rd, etc.). It determines the row in which the Related Entity List will be placed. All fields, related entity lists and sub forms with the same row value will appear in the same row and the maximum number of these elements in one row is 6. If certain row does not contain any of these elements, it will not take any space on the WebForm. So the blank space cannot be made by putting one field in 1st row and the next field in 101st row. If there is no element in between, they will appear one after another.

Column

Property with option set list from where you can select horizontal order of the form elements (fields, related entity lists, sub forms) in the row of the Web form. Selected option can be a value between 1 and 6. WebForm elements that have the same row value, i.e. being in the same row, will be rendered in the horizontal order determined by the column value. The element with the smallest column value will be the leftmost element and the one with the greatest value will be the rightmost.

Minimum Number Of Records

Number entered in this field denotes the minimum number of records that need to be selected on the Related Entity List. In order to successfully submit the WebForm, WebForm visitor needs to select at least this number of records. If the visitor tries to submit the WebForm with less records than this minimum, the action will be prevented and they will be prompted with the message that they cannot submit it with less records selected than the minimum (message will be displayed in Validation Message fields and will fade out slowly). Leaving this field blank is equivalent to 0 value, meaning that, in that case, WebForm visitor can submit the WebForm without a single record selected. Also, this field will be only visible if the selected “Relationship Type” is set to “1:N” or “N:N”, meaning that multiple related entity records can be selected.

Maximum Number Of Records

Number entered in this field denotes the maximum number of records that can be selected on the Related Entity List. If the visitor reaches the maximum number of selected records and tries to select additional one, the action will be prevented and they will be prompted with the message that they cannot select more records than the maximum (message will be displayed in Validation Message fields and will fade out slowly). Leaving this field blank is equivalent to infinity value, meaning that, in that case, WebForm visitor can submit the WebForm with as many records selected as they want. Also, this field will be only visible if the selected “Relationship Type” is set to “1:N” or “N:N”, meaning that multiple related entity records can be selected.

Required

True/False option that specifies if the record selection is required. This field will be only visible if the selected “Relationship Type” is set to “N:1”, meaning that only one related entity record can be selected. This option will denote whether WebForm visitor will be required to specify one related entity record. If it is required and they do not select the record, they will not be able to submit the WebForm.

Display Label Name

True/False option that can allow WebForm editor to hide/show the label displaying above/next to the Related Entity List. By default, label name is hidden.

Tooltip

Tooltip can be set and it will appear on hover over the Related Entity List.

Enable Adding New Records

True/False option that is only visible if the selected “Display Type” is dropdown. If it is set to Yes value, it will convert standard HTML dropdown to jQuery UI autocomplete, which is basically component looking as a dropdown, but it has also ability to add new options to the dropdown. This component appears similarly as “Related Entity”, “Related Entity View” or “Related Entity Field” on the form of Related Entity List within CRM. It allows writing inside it and the text WebForm visitor writes is used to filter options of the dropdown. Finally, when the WebForm is submitted, if the value that WebForm visitor writes in it, does not match any of existing options, new related entity record will be created in CRM and it will be associated with the primary record that is created as well. Value entered in this component by WebForm visitor will be used to set Related Entity’s field that was selected under “Related Entity Field”.

CSS/JS class selectors

Similarly to class selectors of the WebForm and WebForm fields, Related Entity List renders as the system of HTML elements and each of them can have their own classes. These classes can be used to associate certain visual (CSS) and behavioral (JavaScript) characteristics to every HTML element. CSS and JS characteristics for the classes are defined by CSS and JS files attached to the WebForm and by CSS written directly to the WebForm (see "Setting up CSS and JavaScript" section of this guide). Class names, also addressed as class selectors, can be configured under the last tab of the form of the Sub form.

By default, most of class selectors have default values and for those classes, characteristics are defined by native XRM.WebForm look & feel and by Bootstrap. Class selectors can be changed by WebForm author using these fields.

Under this tab, there are fields for entering class names for the following elements:

- Section class
- Row class
- Label class
- Input class

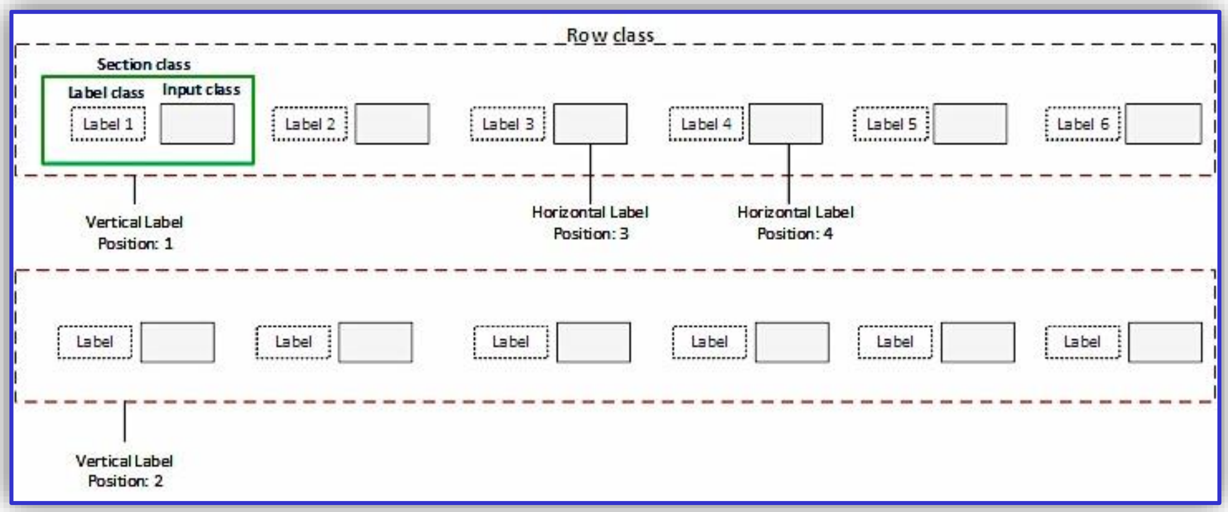
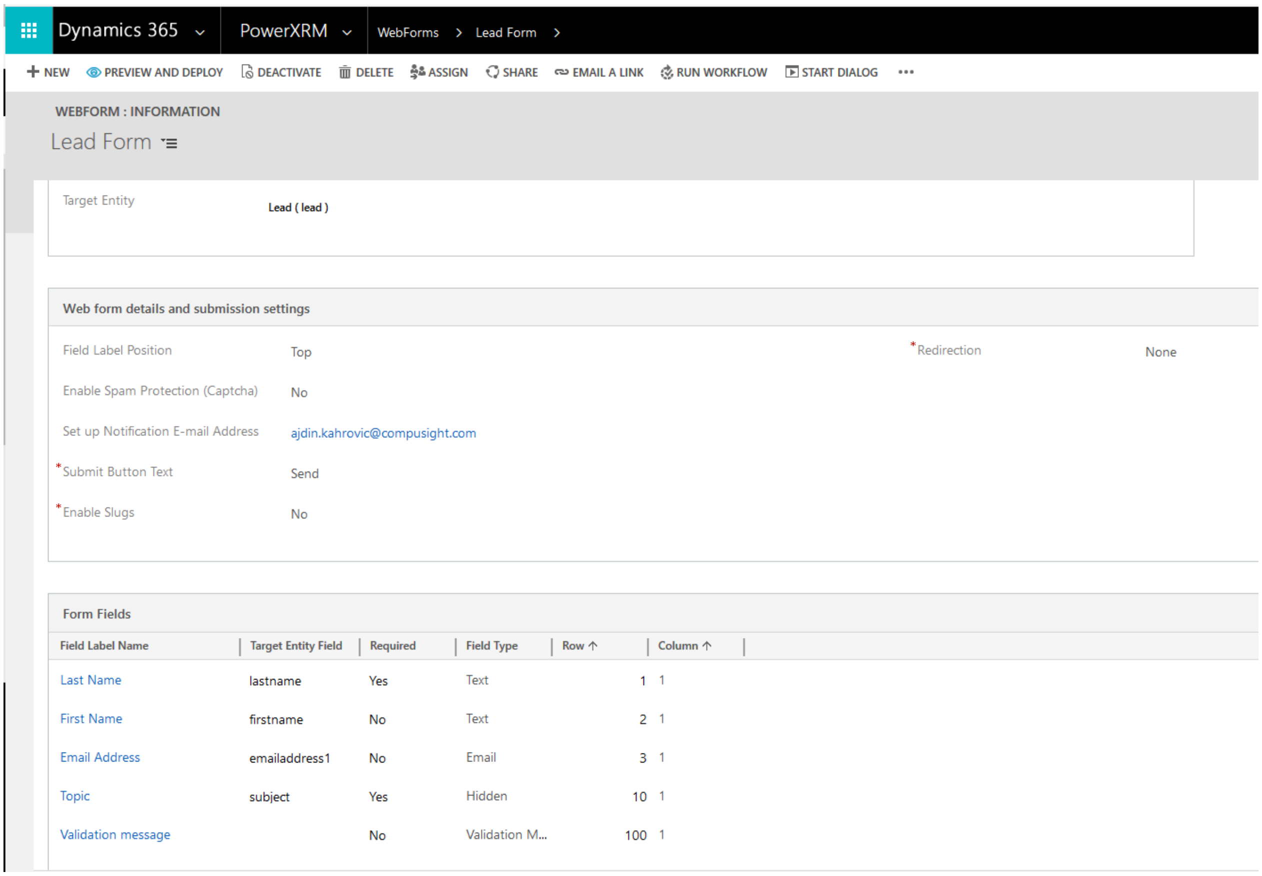


Figure 32 - CSS class selector elements and Related Entity List position relation

Appearance and usage (Use case scenario)

We will present here a simple use case to show how Related Entity Lists can be easily created, how they are displayed and how they reflect on Dynamics CRM structure. We will create a WebForm that will be used to track leads from the company's website and it will allow those potential customers to specify which company's products they are interested in. The WebForm will be very simple and the focus will be on the Related Entity List.

We will create the WebForm targeting Lead entity. Last Name and Topic WebForm fields will be created automatically as they are business required fields for lead entity. We will put Topic in the 10th row (on the bottom) and we will make it a hidden field having default value "Lead from the website". Every lead created through this WebForm will have topic set to this value and it can be used to recognize and categorize it. We will add two additional WebForm Fields: First Name and Email Address, both targeting corresponding Lead's fields. Basic WebForm definition looks like this:



WEBFORM : INFORMATION

Lead Form

Target Entity: Lead (lead)

Web form details and submission settings

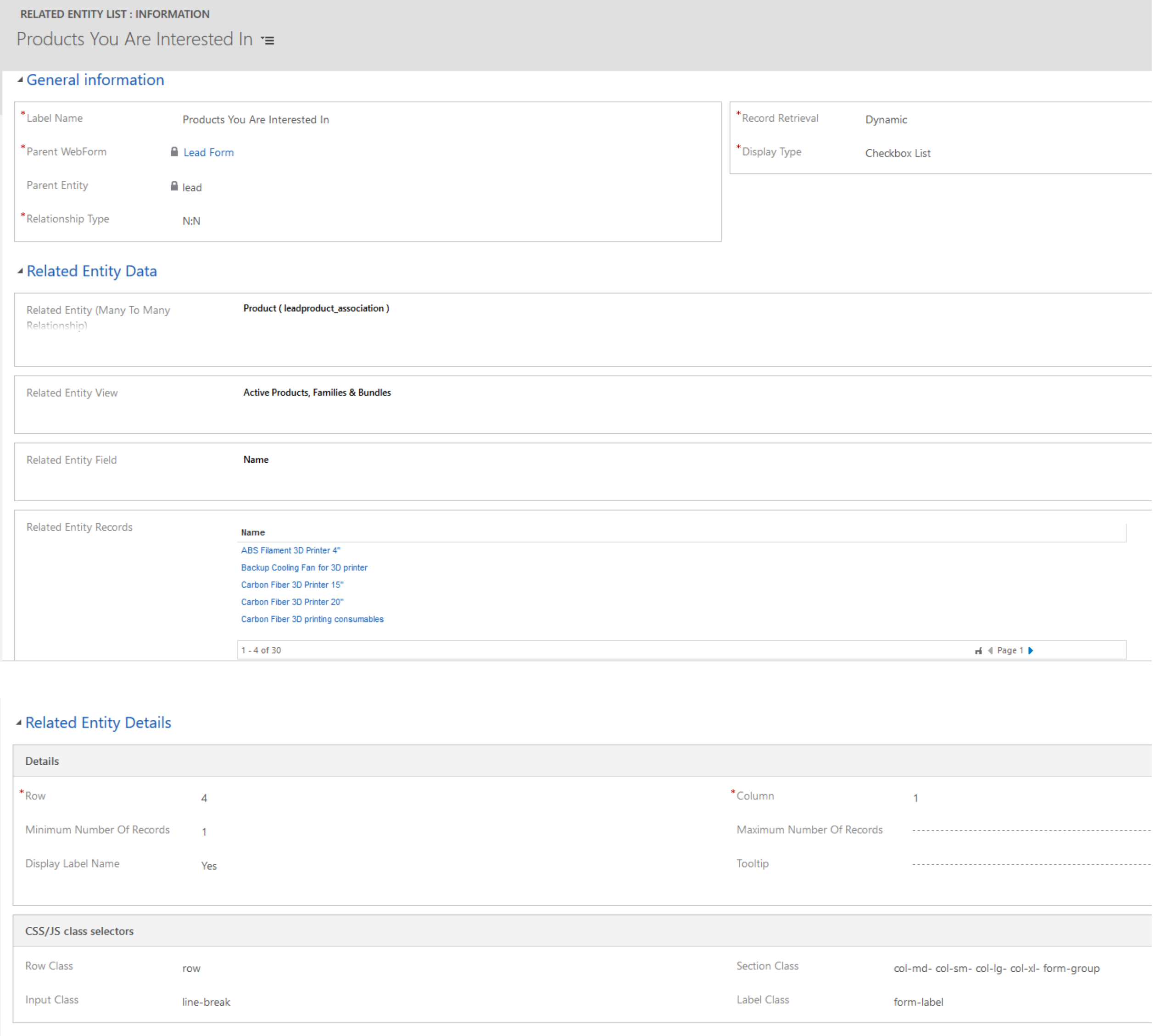
Field Label Position	Top	*Redirection	None
Enable Spam Protection (Captcha)	No		
Set up Notification E-mail Address	ajdin.kahrovic@compusight.com		
*Submit Button Text	Send		
*Enable Slugs	No		

Form Fields

Field Label Name	Target Entity Field	Required	Field Type	Row ↑	Column ↑
Last Name	lastname	Yes	Text	1	1
First Name	firstname	No	Text	2	1
Email Address	emailaddress1	No	Email	3	1
Topic	subject	Yes	Hidden	10	1
Validation message		No	Validation M...	100	1

Figure 33 - Basic WebForm configuration

Now, let's add one Related Entity List. We will name it as "Products You Are Interested In". We will set Record Retrieval to Dynamic as we assume that product list changes frequently and that we want to show WebForm visitor only available products. We will set Display Type to Checkbox List as this would be a usual way of presenting products. We will set Relationship Type to "N:N" and select "Product" as a Related Entity. We will select "Active Products, Families & Bundles" as Related Entity View and finally we will select Related Entity Field. Dropdown options will consist of all fields of Product entity present in selected view. We will select Name field and final appearance of the records will become visible in table under Related Entity Records. Currently, there are 30 products that satisfy conditions set by selected view, but that number might change dynamically by adding new, modifying and deleting existing product records.



RELATED ENTITY LIST : INFORMATION

Products You Are Interested In

General information

*Label Name	Products You Are Interested In	*Record Retrieval	Dynamic
*Parent WebForm	Lead Form	*Display Type	Checkbox List
Parent Entity	lead		
*Relationship Type	N:N		

Related Entity Data

Related Entity (Many To Many Relationship)	Product (leadproduct_association)
Related Entity View	Active Products, Families & Bundles
Related Entity Field	Name
Related Entity Records	

Name
ABS Filament 3D Printer 4"
Backup Cooling Fan for 3D printer
Carbon Fiber 3D Printer 15"
Carbon Fiber 3D Printer 20"
Carbon Fiber 3D printing consumables

1 - 4 of 30 Page 1

Related Entity Details

Details

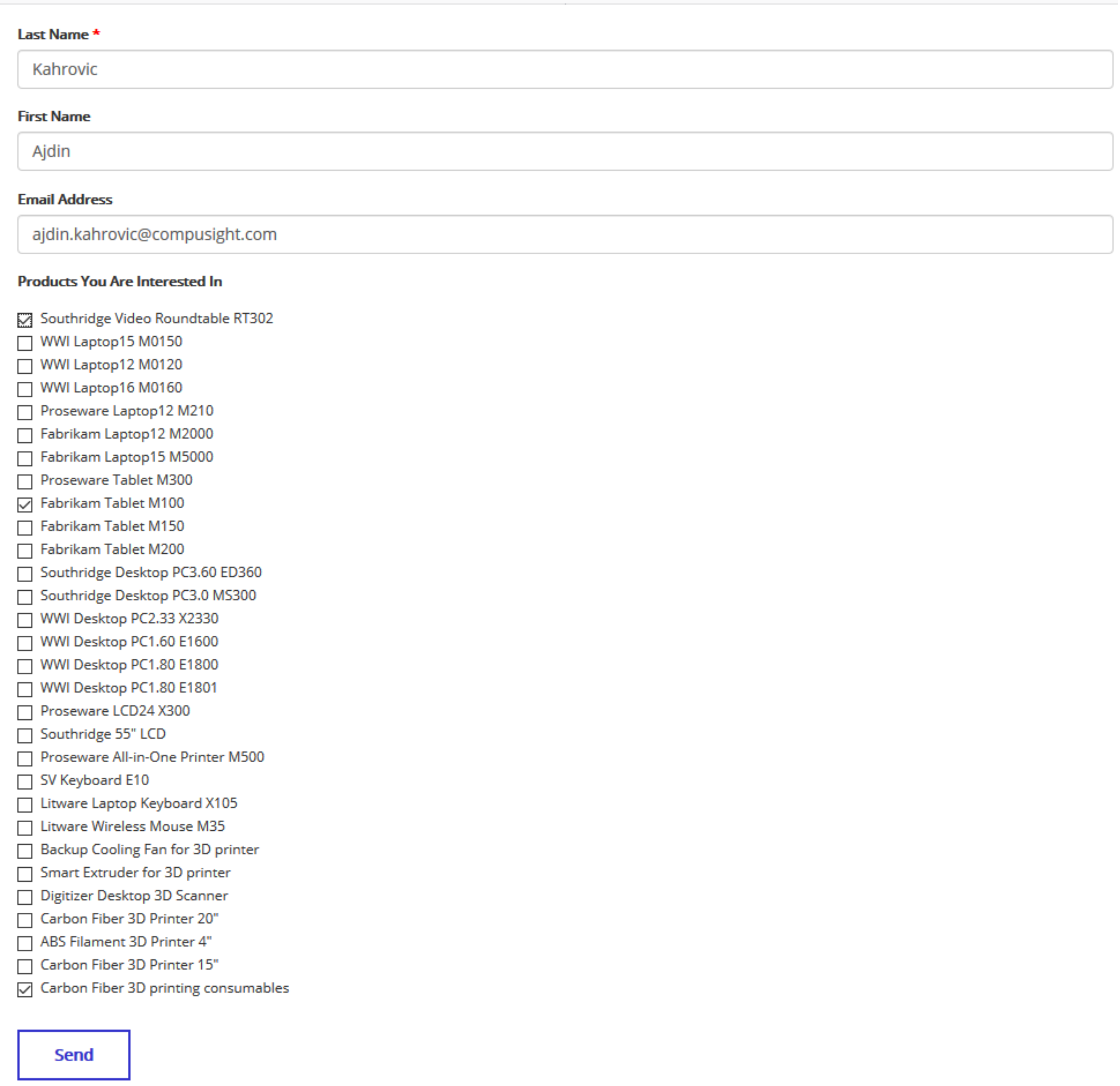
*Row	4	*Column	1
Minimum Number Of Records	1	Maximum Number Of Records	----------
Display Label Name	Yes	Tooltip	----------

CSS/JS class selectors

Row Class	row	Section Class	col-md- col-sm- col-lg- col-xl- form-group
Input Class	line-break	Label Class	form-label

Figure 34 - Form of Related Entity List

We will position Related Entity in the 4th row, set Minimum number of records to 1 and leave everything else as it is. When the Related Entity List is saved and the WebForm deployed, it will look like this:



Last Name *

Kahrovic

First Name

Ajdin

Email Address

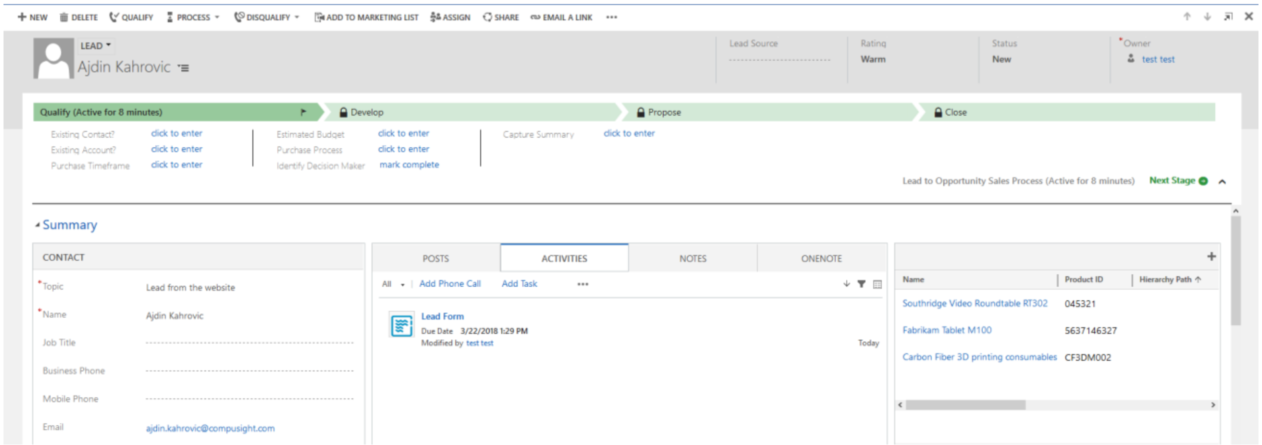
ajdin.kahrovic@compusight.com

Products You Are Interested In

☑ Southridge Video Roundtable RT302
□ WWI Laptop15 M0150
□ WWI Laptop12 M0120
□ WWI Laptop16 M0160
□ Proseware Laptop12 M210
□ Fabrikam Laptop12 M2000
□ Fabrikam Laptop15 M5000
□ Proseware Tablet M300
☑ Fabrikam Tablet M100
□ Fabrikam Tablet M150
□ Fabrikam Tablet M200
□ Southridge Desktop PC3.60 ED360
□ Southridge Desktop PC3.0 MS300
□ WWI Desktop PC2.33 X2330
□ WWI Desktop PC1.60 E1600
□ WWI Desktop PC1.80 E1800
□ WWI Desktop PC1.80 E1801
□ Proseware LCD24 X300
□ Southridge 55" LCD
□ Proseware All-in-One Printer M500
□ SV Keyboard E10
□ Litware Laptop Keyboard X105
□ Litware Wireless Mouse M35
□ Backup Cooling Fan for 3D printer
□ Smart Extruder for 3D printer
□ Digitizer Desktop 3D Scanner
□ Carbon Fiber 3D Printer 20"
□ ABS Filament 3D Printer 4"
□ Carbon Fiber 3D Printer 15"
☑ Carbon Fiber 3D printing consumables

Figure 35 - Appearance of Related Entity List on the WebForm

As it can be seen, all 30 products are displayed as a list of checkboxes and each product is represented by its name. Data entered in text fields and selected products are example of WebForm visitor's data. When the WebForm is submitted, new lead named as "Ajdin Kahrovic" will be created and selected products: Southridge Video Roundtable RT302, Fabrikam Tablet M100 and Carbon Fiber 3D printing consumables will be associated with newly created lead.



Ajdin Kahrovic

Lead Source ------------------------

Rating Warm

Status New

*Owner test test

Existing Contact? click to enter

Existing Account? click to enter

Purchase Timeframe click to enter

Estimated Budget click to enter

Purchase Process click to enter

Identify Decision Maker mark complete

Capture Summary click to enter

CONTACT

*Topic Lead from the website

*Name Ajdin Kahrovic

Job Title ------------------------

Business Phone ------------------------

Mobile Phone ------------------------

Email ajdin.kahrovic@compusight.com

Lead Form
Due Date 3/22/2018 1:29 PM
Modified by test test
Today

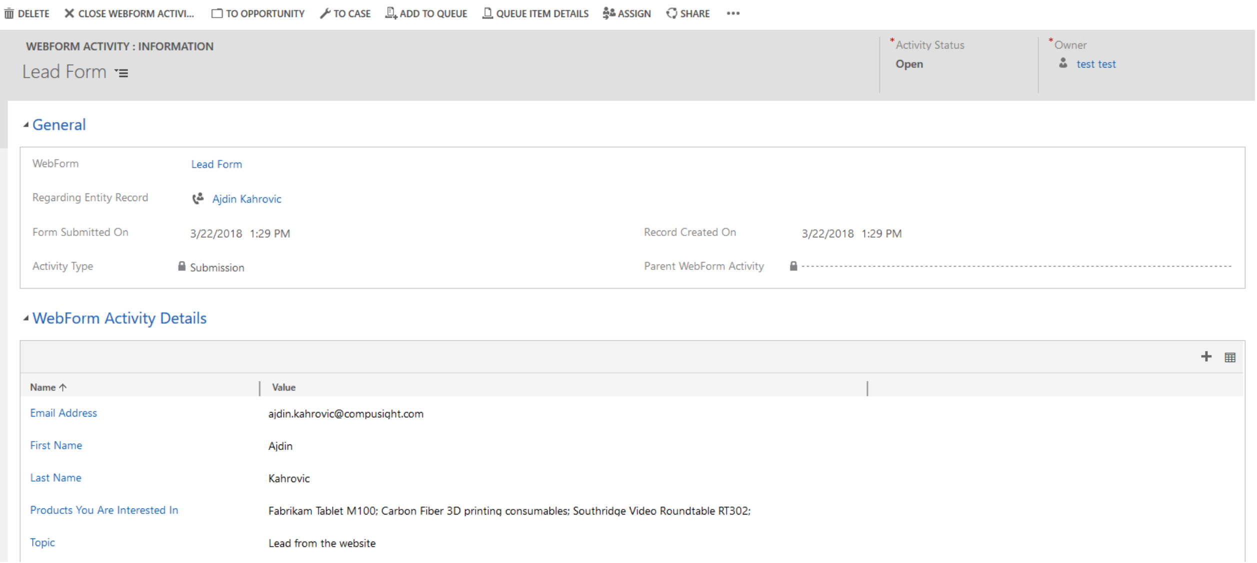
Name	Product ID	Hierarchy Path
Southridge Video Roundtable RT302	045321	
Fabrikam Tablet M100	5637146327	
Carbon Fiber 3D printing consumables	CF3DM002	

Figure 36 - Newly created record with related entity records associated

Tracking submissions

Submissions that include Related Entity Lists are tracked in the same way as any other submission: by WebForm Activity and by Email notification. There are slight changes in the way of appearance of these two ways of tracking.

WebForm Activity will have the same set of basic information about submission. WebForm Activity Details will contain the information on selected records on Related Entity List. Every Related Entity List on the WebForm will have corresponding WebForm Activity Detail. Name of the WebForm Activity Detail will be the name of Related Entity List and the value will be the list of selected records, separated by semicolons. Each record will be represented by its primary name in CRM. Therefore, Related Entity Lists are treated as any other WebForm Field on the WebForm Activity. See the example of WebForm Activity for previous submission:



WEBFORM ACTIVITY : INFORMATION

Lead Form

*Activity Status: Open

*Owner: test test

General

WebForm: Lead Form

Regarding Entity Record: Ajdin Kahrovic

Form Submitted On: 3/22/2018 1:29 PM

Record Created On: 3/22/2018 1:29 PM

Activity Type: Submission

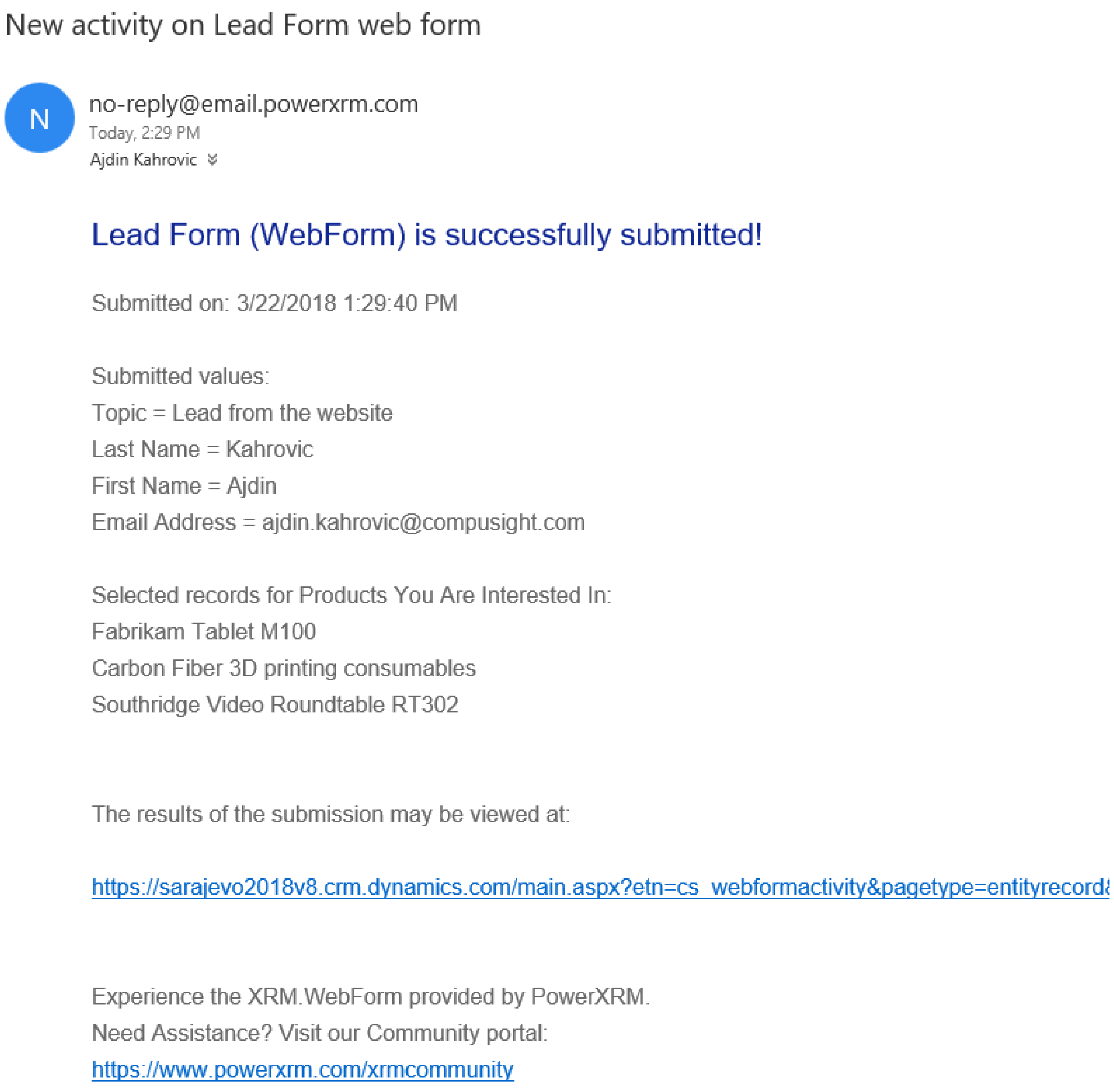
Parent WebForm Activity: ---

WebForm Activity Details

Name ↑	Value
Email Address	ajdin.kahrovic@compusight.com
First Name	Ajdin
Last Name	Kahrovic
Products You Are Interested In	Fabrikam Tablet M100; Carbon Fiber 3D printing consumables; Southridge Video Roundtable RT302;
Topic	Lead from the website

Figure 37 - WebForm Activity with Related Entity List

When it comes to the e-mail notification, it will have minor change as well. Under the list of WebForm Fields, there will be list of Related Entity Lists present on the submitted WebForm. For each Related Entity List, it will be written “Selected records for {{Related Entity List’s Name}}:” and there will be the list of selected records, each of them represented by its primary name in CRM. See the example below:



New activity on Lead Form web form

N

no-reply@email.powerxrm.com

Today, 2:29 PM

Ajdin Kahrovic

Lead Form (WebForm) is successfully submitted!

Submitted on: 3/22/2018 1:29:40 PM

Submitted values:

Topic = Lead from the website

Last Name = Kahrovic

First Name = Ajdin

Email Address = ajdin.kahrovic@compusight.com

Selected records for Products You Are Interested In:

Fabrikam Tablet M100

Carbon Fiber 3D printing consumables

Southridge Video Roundtable RT302

The results of the submission may be viewed at:

https://sarajevo2018v8.crm.dynamics.com/main.aspx?etn=cs_webformactivity&pagetype=entityrecord&

Experience the XRM.WebForm provided by PowerXRM.

Need Assistance? Visit our Community portal:

https://www.powerxrm.com/xrmcommunity

Figure 38 - E-mail notification with Related Entity List

Sub Forms

Sub Form feature of a WebForm allows users to add child WebForms to the main WebForm. With the use of a Sub Form, several records of related entity can be created alongside the creation of the main record, when the WebForm submission happens. Besides creating the records of related entity, they are also associated to the main record automatically. To illustrate the use of Sub Forms, let's see following example: WebForm author can create WebForm which has target entity set to Contact and then create another WebForm which has target entity set to Account entity. The author can add Sub Form to Account WebForm and set Sub Form's WebForm to previously created Contact Web Form. It can define that maximum number of Contact records that can be created using that Sub form is 5 and minimum is 2. When the author deploys Account WebForm, it will contain the list of WebForm Fields of the Account (as expected) and Sub Form section containing several Contact WebForms. When the WebForm visitor fills this Account WebForm, he needs to add at least 2 contacts (fill at least 2 Contact WebForms) and he can add maximally 5 contacts. When the visitor submits the WebForm, one account record and 2-5 contacts will be created in the CRM. Besides the creation, all created contact records will be associated to the account record. This was just a quick illustration of how Sub Forms work and in further text, all features of Sub Forms will be explained in detail.

Configuration

Sub Forms are added to the main Web Form similarly as WebForm Fields and Related Entity Lists, using the subgrid visible on the form of the WebForm. This subgrid is positioned below Related Entity Lists subgrid. After the WebForm is saved at least once, click on the **" + "** button above the Sub Forms subgrid and a form for creating Sub Form will open. As you can see on next picture, form consists of three tabs: General information, Relationships and Details.

The meaning of each field is as follows:

Label Name

Value entered into this field has two purposes. First purpose is to give a name to the Sub Form that will be used within CRM for its identification. Second purpose is to give the label to the Sub Form. It is the text that will be written next to the Sub Form section on the WebForm (its relative position to the Sub Form will be determined by "Label position" attribute of the WebForm) if the "Display Label Name" is set to "yes".

Parent WebForm

Identifier for WebForm associated with the Sub Form. It is read-only field.

Parent Entity

Entity which is target entity for the parent WebForm. It is also read-only field.

Relationship Type

First major step of adding Sub Form is to determine which Child WebForm will be used for this specific Sub Form. As the selected WebForm needs to be mapped to entity which is in certain relationship with the entity which is target entity of parent WebForm (Parent Entity), relationship of Parent Entity needs to be selected first. Relationship Type field is used to filter all relationships of Parent Entity, so it is easier to select appropriate relationship. Therefore, relationship Type is an option set containing three options: “1:N”, “N:1” and “N:N”. When the WebForm author selects one of three presented options, option set containing the list of relationships will only show relationships of selected type.

One To Many Relationship / Many To One Relationship / Many To Many Relationship

A field with one of these three labels will appear under Relationships tab. Which specific label will be written will depend on selected “Relationship Type”. Dropdown will contain the list of all relationships between parent entity and any other entity existing in the CRM organization which are relationships of selected relationship type (“1:N”, “N:1” or “N:N”). You can type the name of the relationship or related entity (it has autocomplete property) or you can select it from the dropdown list. If you create custom relationships, they will be also visible on this list. Each of the options in this dropdown is structured as “Related entity name (Relationship name)”. For instance, it can be “Contact (account_primary_contact)” for N:1 relationship between Account and (its primary) Contact.

Child WebForm

This field is a lookup field that allows selection of another WebForm. WebForm selected here will be used as the WebForm within Sub Form section for creating related entity records. Only existing WebForms can be selected and two additional conditions need to be met: first condition is that Child WebForm has target entity set to related entity selected by selecting relationship. In previous example, where selected relationship option is “Contact (account_primary_contact)”, related entity is Contact, so Child WebForm needs to be a WebForm which has target entity set to Contact. Second condition is that the WebForm is already published (buttons “Preview&Deploy” and “Publish” are clicked on that WebForm). The list of

WebForms satisfying all conditions will be presented, so choosing any of them will be acceptable. However, even though selecting WebForm which does not satisfy all conditions can be done (by a workaround), when the Sub Form is saved, conditions will be checked again and Sub Form will not be allowed for saving with inadequate Child WebForm selected. Further on, as Child WebForm is business required field, Sub Form cannot be saved without having Child WebForm specified.

Under Details tab, there are following fields as well:

Default Number Of Child WebForms

This field defines the number of Child WebForms which will appear within Sub Form section when the main WebForm loads. WebForm visitor can remove some of the WebForms from the Sub Form section (but not less than defined minimum number of WebForms) and add new WebForms (but not more than defined maximum number of WebForms), but this number defines initial number of WebForms when they all load. By default, this value is se set to 3 and can be changed to any positive whole number by WebForm author.

Add Button Name

Sub Form section will contain a button alongside child WebForms. A button will be placed beneath all child WebForms and click on it will add a new child WebForm to the Sub Form section (unless maximum number of WebForms is reached). Value entered in this field will appear as a label on this button. By default, it is "+ ADD".

Row

Vertical order of the field on the Web form (i.e. 1st, 2nd, 3rd, etc.). It determines the row in which the Sub Form will be placed. All fields, related entity lists and sub forms with the same row value will appear in the same row and the maximum number of these elements in one row is 6. If certain row does not contain any of these elements, it will not take any space on the WebForm. So the blank space cannot be made by putting one field in 1st row and the next field in 101st row. If there is no element in between, they will appear one after another.

Column

Property with option set list from where you can select horizontal order of the form elements (fields, related entity lists, sub forms) in the row of the Web form. Selected option can be a value between 1 and 6. WebForm elements that have the same row value, i.e. being in the same row, will be rendered in the horizontal order determined by the column value. The element with the smallest column value will be the leftmost element and the one with the greatest value will be the rightmost.

Collapsible

Property defined by this field determines whether Sub Form section will be collapsible or not. If it is set to true, click on Sub Form header will hide the body of Sub Form (containing introductory text, child WebForms and "add button") if it is visible. If the body is hidden, click on Sub Form header will show Sub Form's body. Also, in the left corner of the header, "+/-" sign will appear denoting if the Sub Form is collapsed or not. By default, the Sub Form is collapsible.

Scrollable

This yes/no option set defines whether the Sub Form section on the WebForm will be scrollable. By default, Sub Form is not scrollable and the height of Sub Form section will increase/decrease depending on the height of its content (i.e. body). Contrary to that behavior, Sub form section can have fixed height and if the content of the Sub form becomes greater than that fixed height, vertical scroll will appear.

Fixed Height

If the Sub Form is set to be scrollable, this field will appear and it should contain the fixed height in pixels of the Sub Form section. Entered value must be positive number.

Minimum Number Of Child WebForms

Number entered in this field denotes the minimum number of Child WebForms on the Sub Form. WebForm visitor can remove Child WebForms up to this number. If the visitor tries to remove additional Child WebForm when this minimum number is reached, the action will be prevented and they will be prompted with the message that they cannot further decrease the number of Child WebForms (message will be displayed in Validation Message fields and will fade out slowly). Leaving this field blank is equivalent to 0 value, meaning that, in that case, WebForm visitor can submit the WebForm without a single Child WebForm in the Sub Form section.

Maximum Number Of Child WebForms

Number entered in this field denotes the maximum number of Child WebForms on the Sub Form. WebForm visitor can add Child WebForms up to this number. If the visitor tries to add additional Child WebForm when this maximum number is reached, the action will be prevented and they will be prompted with the message that they cannot further increase the number of Child WebForms (message will be displayed in Validation Message fields and will fade out slowly). Leaving this field blank is equivalent to infinity value, meaning that, in that case, WebForm visitor can submit the WebForm with as many Child WebForms in the Sub Form section as they want.

Display Header

True/False option allowing to define whether the header of Sub Form section will appear on the WebForm. If it is set to true, header ribbon will appear and it will contain the label name and possibly, "+/-" sign to indicate if the Sub Form is collapsible. If it is set to false, Sub Form body will be showed and Webform visitor will not be able to hide it. By default, "Display Header" value is set to true.

Display Label Name

True/False option that can allow WebForm editor to hide/show the label displaying above/next to the Sub Form. By default, label name is hidden.

Tooltip

Tooltip can be set and it will appear on hover over the Sub Form section.

Enumerated

True/False option indicating whether each Child WebForm will be enumerated in the Sub Form section. If it is set to true, ordinal number will appear left to every Child WebForm in the Sub Form section.

Collapsed

This True/False option is only visible if the Collapsible value is set to true. Then, the WebForm author can, using this field, denote whether the Sub Form section will be collapsed or not, when the main WebForm loads. If this option is set to True, then the body of the Sub Form will be hidden (collapsed) on load.

Introduction Text

Sub Form section has its header and the body. Body can have following elements: introduction text, the list of Child Webforms and the "add button". Introduction text is a text appearing on the top of Sub Form's body and can give guidelines to the WebForm visitor how to fill Child WebForms. Value entered in this multiline field will appear as introduction text.

CSS/JS class selectors

Similarly to class selectors of the WebForm and WebForm fields, Sub Form renders as the system of HTML elements and each of them can have their own classes. These classes can be used to associate certain visual (CSS) and behavioral (JavaScript) characteristics to every HTML element. CSS and JS characteristics for the classes are defined by CSS and JS files attached to the WebForm and by CSS written directly to the WebForm (see "Setting up CSS and JavaScript" section of this guide). Class names, also addressed as class selectors, can be configured under the last tab of the form of the Sub form.

By default, most of class selectors have default values and for those classes, characteristics are defined by native XRM.WebForm look & feel and by Bootstrap. Class selectors can be changed by WebForm author using these fields.

Under this tab, there are fields for entering class names for the following elements:

- **Row Class**
- **Section Class**
- **Label Class**
- **Container Class**
- **Add Button Class**
- **Remove Button Class**
- **Header Class**
- **Body Class**
- **Wrapper Class**
- **Introduction Class**
- **Remove Icon Id** – name of SVG image representing icon for removing Child WebForm

For better understanding of the meaning of each of these, please see the diagram of generated HTML elements below:

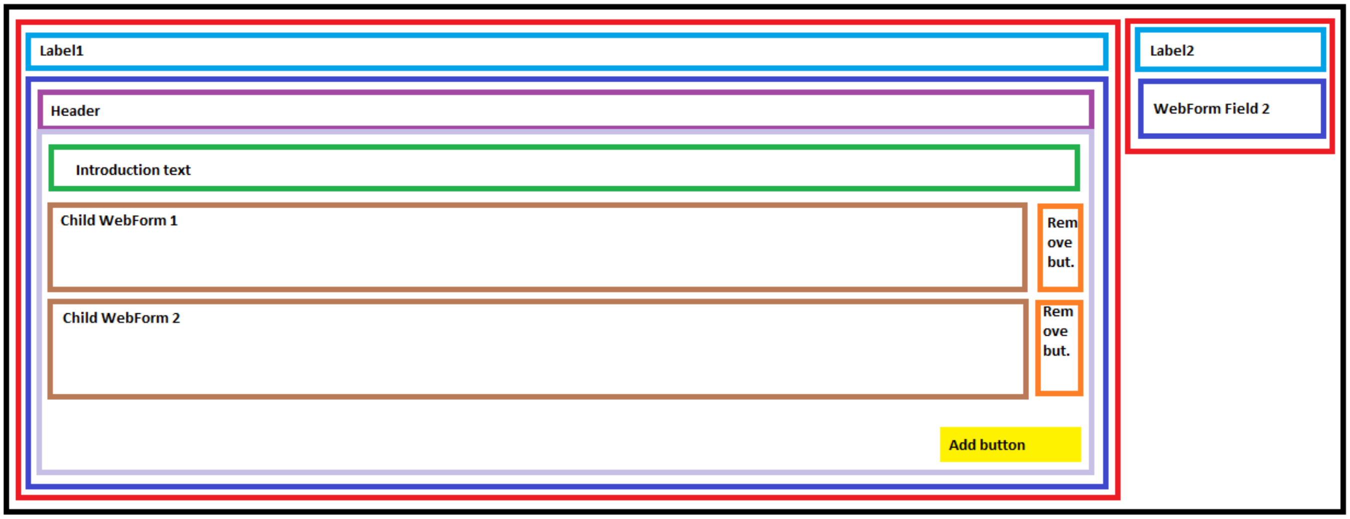


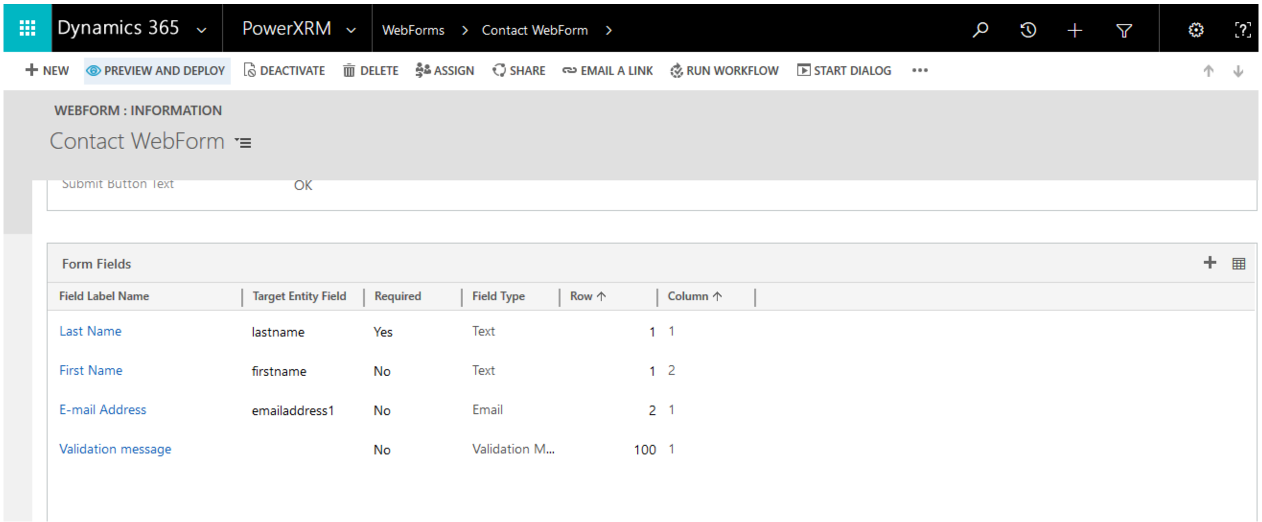
Figure 39 - HTML elements comprising Sub Form

In this diagram, every HTML element that has corresponding class selector is denoted in different color. Colors correspond to the colors in which names of class selectors are written in previous page.

Appearance and usage (Use case scenario)

We will present here a simple use case to show how Sub Forms can be easily created, how they are displayed and how they reflect on Dynamics CRM structure. We will create a WebForm which can be used for registration of potential partner company. It will include basic information about the company and information about several contacts from that company. Submission of that WebForm will create one account record in CRM and several records of contacts.

First, we will create a simple Contact WebForm. It will contain First Name, Last Name and E-mail Address field and it will have a target entity set to Contact. WebForm fields are configured in the following way:



WEBFORM : INFORMATION

Contact WebForm

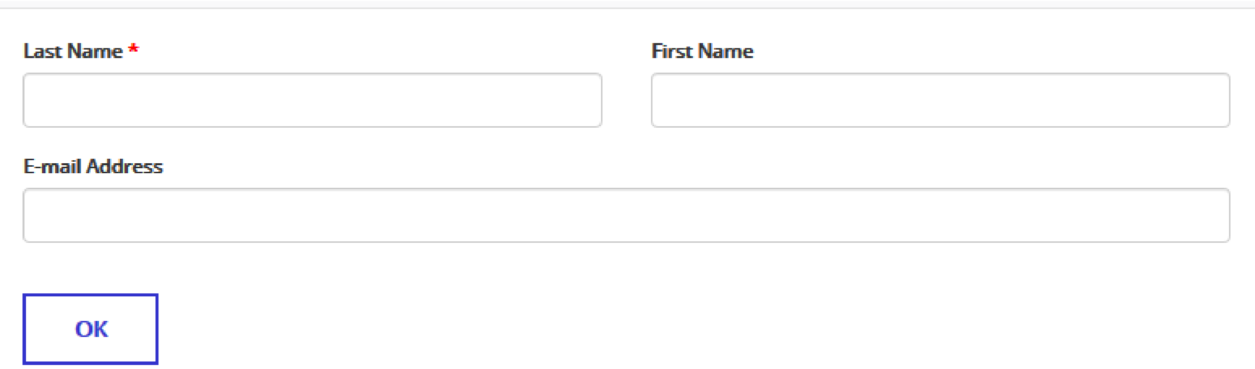
Submit Button Text OK

Form Fields

Field Label Name	Target Entity Field	Required	Field Type	Row ↑	Column ↑
Last Name	lastname	Yes	Text	1	1
First Name	firstname	No	Text	1	2
E-mail Address	emailaddress1	No	Email	2	1
Validation message		No	Validation M...	100	1

Figure 40 - Basic configuration of a child WebForm

In order to use this WebForm as a child WebForm of a Sub Form, it needs to be published first (by Preview & Deploy button). This configuration will produce WebForm looking like this:



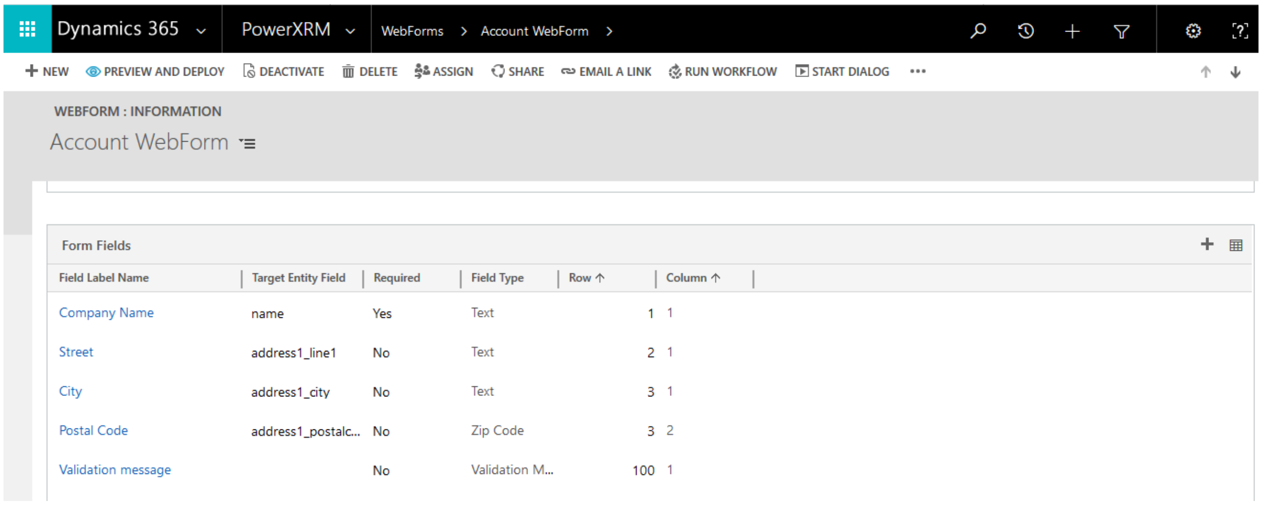
Last Name *

First Name

E-mail Address

Figure 41 - Appearance of a child WebForm

Afterwards, we will create Account WebForm. It will contain WebForm fields Company Name, Street, City and Postal Code and will have target entity set to Account. WebForm fields are configured in the following way:



WEBFORM : INFORMATION

Account WebForm

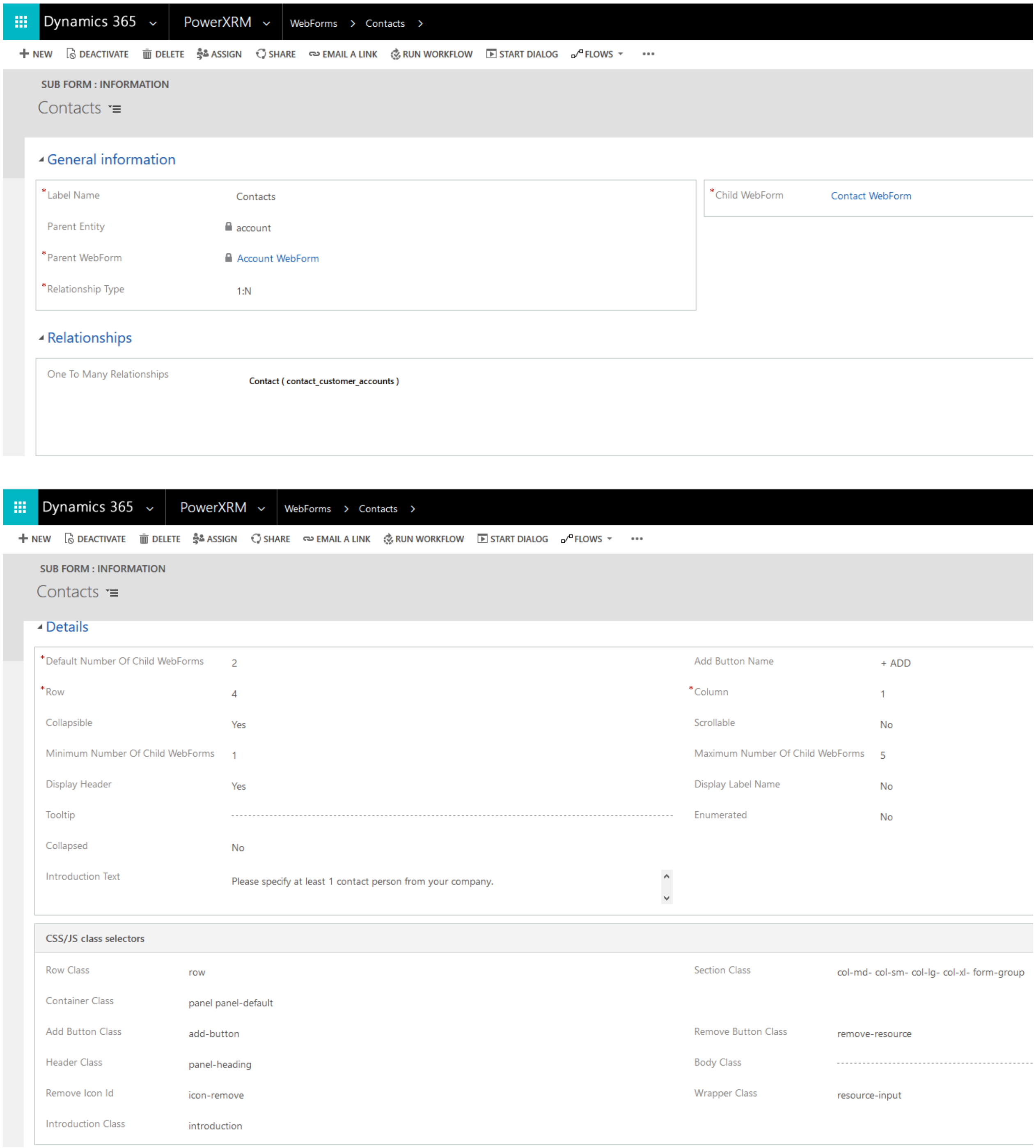
Form Fields

Field Label Name	Target Entity Field	Required	Field Type	Row ↑	Column ↑
Company Name	name	Yes	Text	1	1
Street	address1_line1	No	Text	2	1
City	address1_city	No	Text	3	1
Postal Code	address1_postalc...	No	Zip Code	3	2
Validation message		No	Validation M...	100	1

Figure 42 - Basic configuration of a parent WebForm

Now, we will add a Sub Form to Account WebForm. We will name it as Contacts, choose 1:N as a relationship type and choose “Contact (contact_customer_accounts)” as a targeting relationship. Then, we will choose Child WebForm among existing published WebForms which have Contact as a target entity. We will choose just created Contact WebForm. We will set that minimum number of instances of Contact WebForm to be 1, default (when loaded) to 2 and maximum to 5. Also, we will enter some introduction text. Everything else we will left as it is (collapsible, not scrollable, default add button text, default class selectors…).

Configuration of Sub Form will appear similar to this:



SUB FORM : INFORMATION

Contacts

General information

*Label Name	Contacts
Parent Entity	account
*Parent WebForm	Account WebForm
*Relationship Type	1:N
*Child WebForm	Contact WebForm

Relationships

One To Many Relationships	Contact (contact_customer_accounts)

SUB FORM : INFORMATION

Contacts

Details

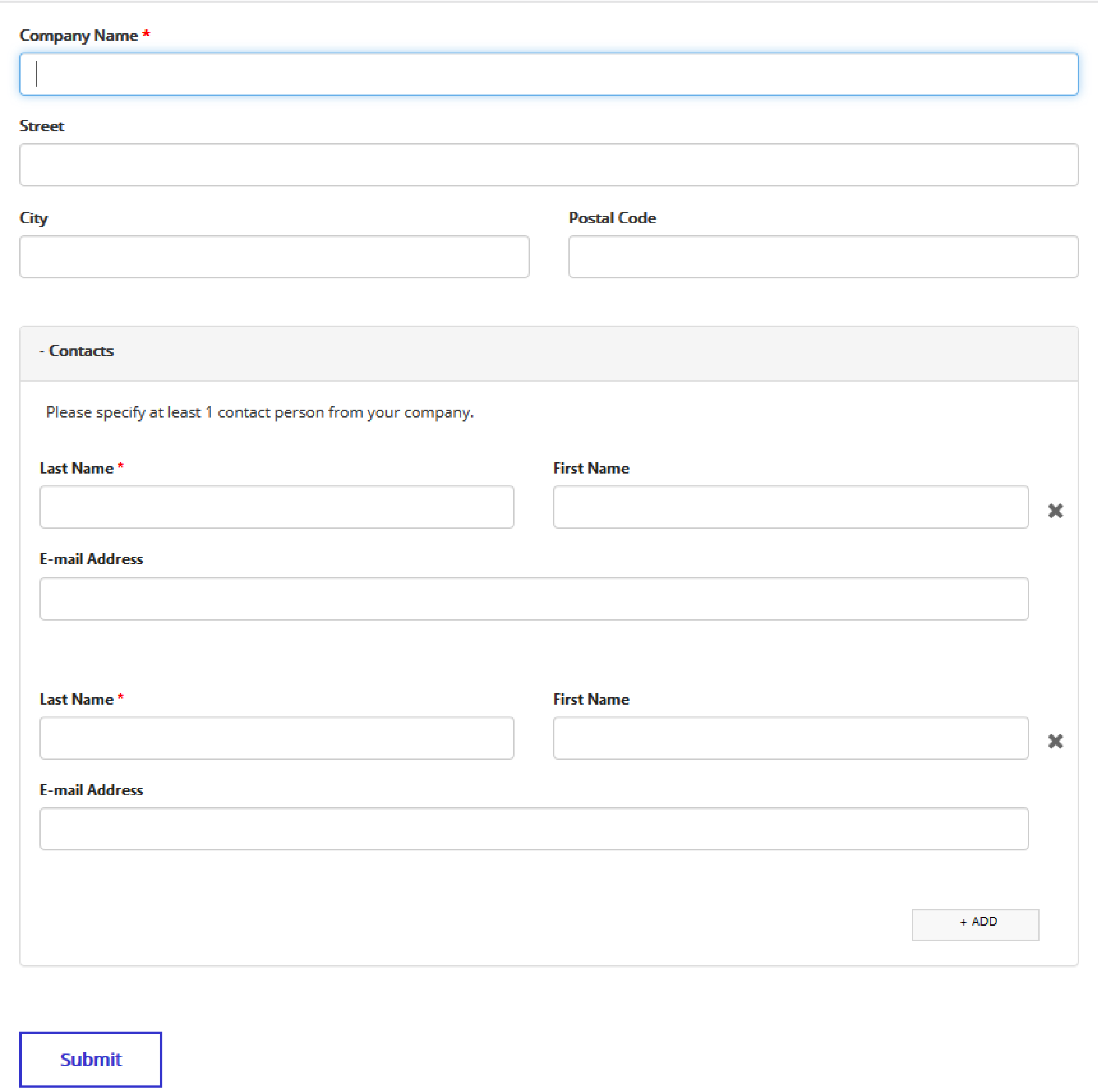
*Default Number Of Child WebForms	2	Add Button Name	+ ADD
*Row	4	*Column	1
Collapsible	Yes	Scrollable	No
Minimum Number Of Child WebForms	1	Maximum Number Of Child WebForms	5
Display Header	Yes	Display Label Name	No
Tooltip	---	Enumerated	No
Collapsed	No		
Introduction Text	Please specify at least 1 contact person from your company.		

CSS/JS class selectors

Row Class	row	Section Class	col-md- col-sm- col-lg- col-xl- form-group
Container Class	panel panel-default		
Add Button Class	add-button	Remove Button Class	remove-resource
Header Class	panel-heading	Body Class	---
Remove Icon Id	icon-remove	Wrapper Class	resource-input
Introduction Class	introduction		

Figure 43 - Configuration of the Sub Form

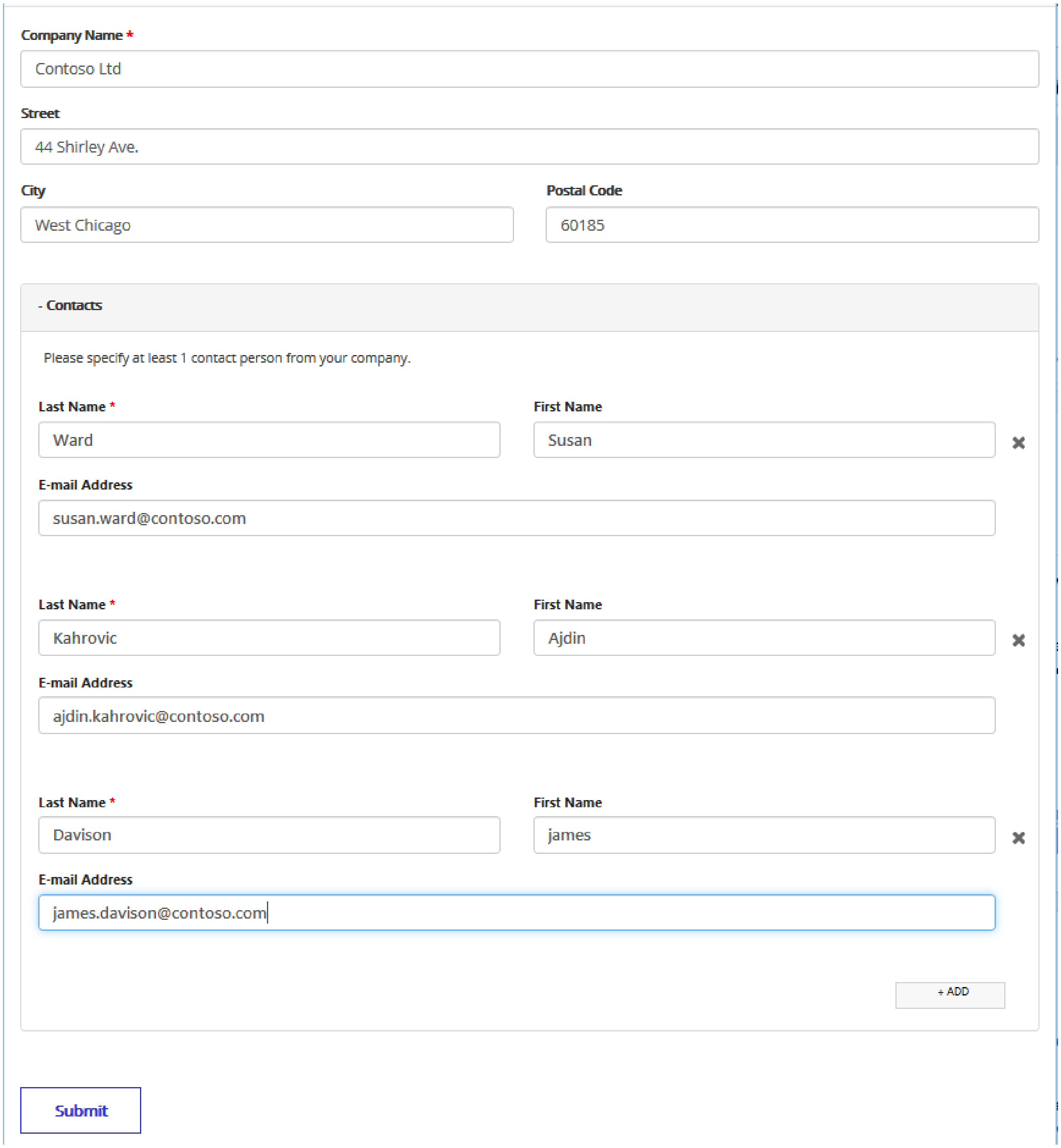
We will save it and return to Account WebForm. We will publish it and the WebForm will look like this:



Please specify at least 1 contact person from your company.

Figure 44 - WebForm with a Sub Form

As it can be seen, Account WebForm has all configured fields and in the last row, it shows Sub Form section. The section contains 2 Contact WebForms (because default number of Child WebForms is set to 2). WebForm visitor can click on Sub Form header to collapse it or to show it. They can also remove some of Contact WebForms by clicking on “X” sign left of each of WebForms (but at least 1 must remain) and they can add new Contact Webforms by clicking on “+ ADD” button (but no more than 5 WebForms). All required WebForms field of Child WebForms are still required and submit button from each of them is removed. Here is one example of how the WebForm can be filled:



Company Name *
Contoso Ltd

Street
44 Shirley Ave.

City
West Chicago

Postal Code
60185

- Contacts

Please specify at least 1 contact person from your company.

Last Name *
Ward

First Name
Susan

E-mail Address
susan.ward@contoso.com

Last Name *
Kahrovic

First Name
Ajdin

E-mail Address
ajdin.kahrovic@contoso.com

Last Name *
Davison

First Name
james

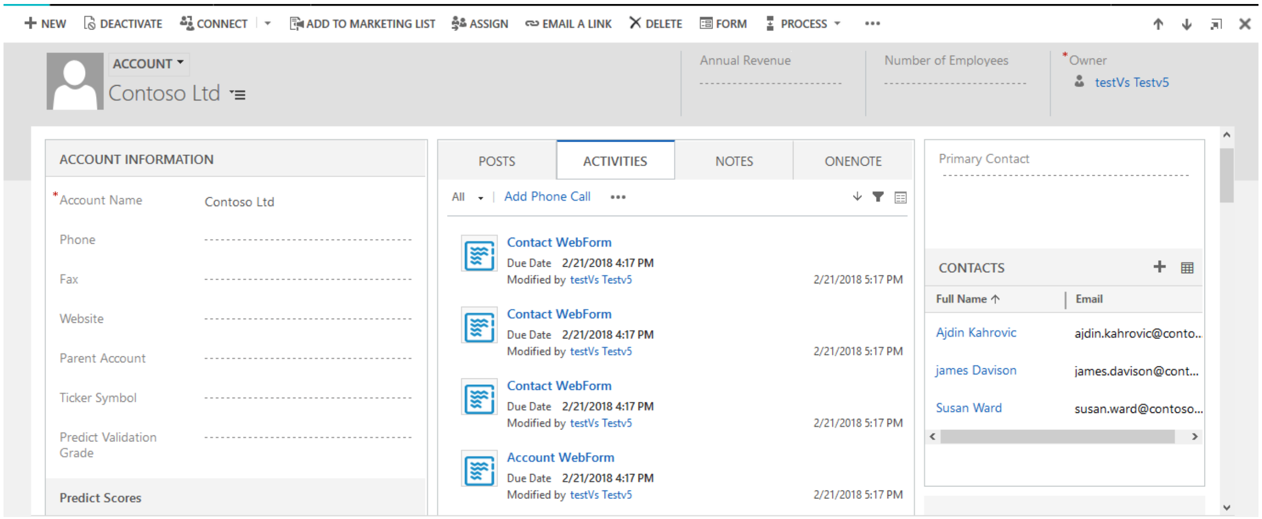
E-mail Address
james.davison@contoso.com

Figure 45 - Example of submission of the WebForm with Sub Form

In this example, WebForm visitor added one additional Contact WebForm and added 3 contacts in total. Submission of all of this data is done by a single click on Submit button.

As the result of this submission, 1 account record and 3 contact records will be created in CRM. Additionally, they will be associated to each other using 1:N relationship between account and contacts (contact_customer_accounts).

Let's see created account record:



Contoso Ltd

Annual Revenue

Number of Employees

*Owner testVs Testv5

ACCOUNT INFORMATION

*Account Name	Contoso Ltd
Phone	
Fax	
Website	
Parent Account	
Ticker Symbol	
Predict Validation Grade	

Predict Scores

Contact WebForm
Due Date 2/21/2018 4:17 PM
Modified by testVs Testv5 2/21/2018 5:17 PM

Contact WebForm
Due Date 2/21/2018 4:17 PM
Modified by testVs Testv5 2/21/2018 5:17 PM

Contact WebForm
Due Date 2/21/2018 4:17 PM
Modified by testVs Testv5 2/21/2018 5:17 PM

Account WebForm
Due Date 2/21/2018 4:17 PM
Modified by testVs Testv5 2/21/2018 5:17 PM

Primary Contact

CONTACTS

Full Name	Email
Ajdin Kahrovic	ajdin.kahrovic@conto...
james Davison	james.davison@cont...
Susan Ward	susan.ward@contoso...

Figure 46 - Created Account record with 3 child Contacts

As it can be seen on the picture, created Account record has fields set to values entered on the WebForm (name set to "Contoso Ltd"). Besides that, it has three Contact records associated: Ajdin Kahrovic, james Davison and Susan Ward, all three of them created through WebForm submission.

Tracking submissions

Submissions that include Sub Forms are tracked in the same way as any other submission: by WebForm Activity and by Email notification. There are slight changes in the way of appearance of these two ways of tracking.

Corresponding WebForm Activity will be created for every created record. In the previously seen example, one Webform Activity will be created for the account record and three Activities will be created for contact records. The one created for account record is called Parent WebForm Activity, while those created for contacts are called Sub Form Activities. However, the default WebForm Activity view, named as "All WebForm Activities", will only contain Parent WebForm Activities. XRM.WebForm Pro also contains additional view, named as "Sub Form Activities", in which you can preview all Sub Form Activities.

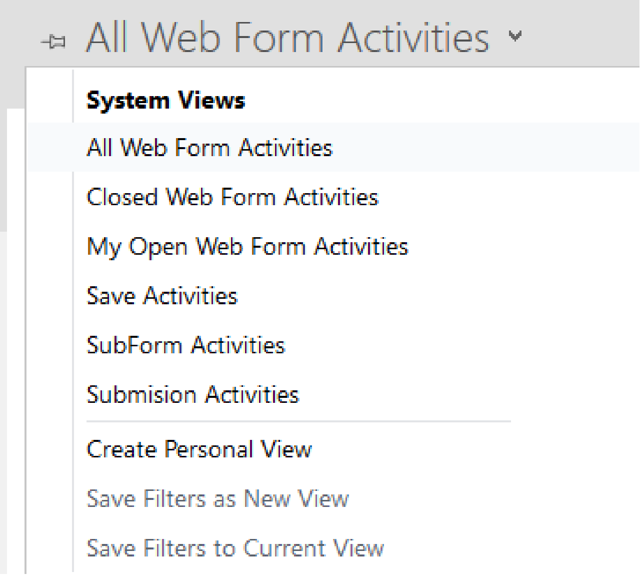
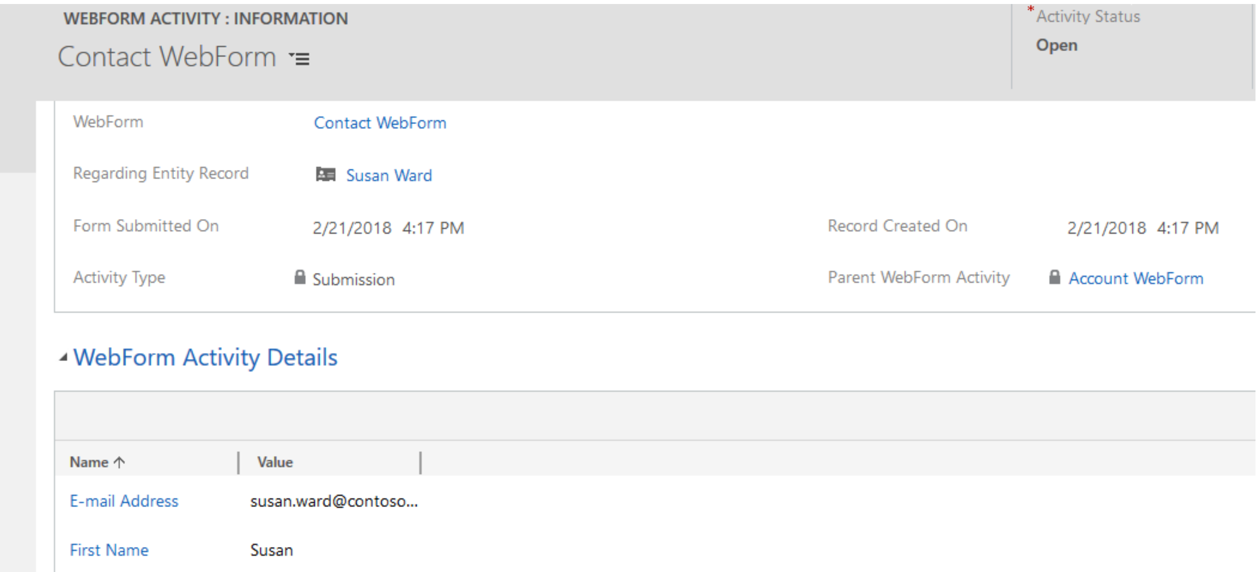


Figure 47 - List of WebForm Acitivity views

When the WebForm Activity form opens, it will contain additional field named as Parent WebForm Activity which is locked. If the WebForm Activity is Parent, meaning that the record is created as the main record of WebForm submission, it will be empty. On the other hand, if the record to which the activities points to is created as a part of Sub Form (Sub Form Activity), this field will contain the reference to WebForm Activity of the main record created with this submission. In the previously presented example, WebForm Activity pointing to account record will have Parent WebForm Activity set to empty value, while WebForm Activities pointing to contact records will have Parent WebForm Activity set to the WebForm Activity of account record.



WEBFORM ACTIVITY : INFORMATION

Contact WebForm

*Activity Status
Open

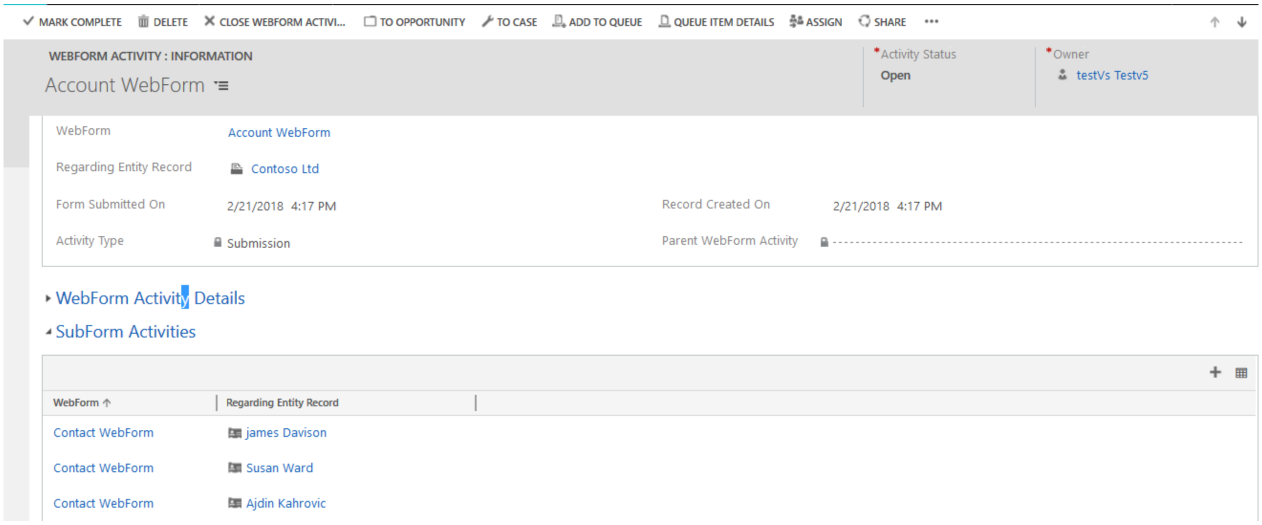
WebForm	Contact WebForm		
Regarding Entity Record	Susan Ward		
Form Submitted On	2/21/2018 4:17 PM	Record Created On	2/21/2018 4:17 PM
Activity Type	Submission	Parent WebForm Activity	Account WebForm

WebForm Activity Details

Name ↑	Value
E-mail Address	susan.ward@contoso...
First Name	Susan

Figure 48 - Basic information on WebForm Activity

Other information about WebForm Activity, as well as Webform Activity Details, are the same as in the case without Sub Forms. Sub Form Activities will contain the details (WebForm field values) about every single child WebForm which is submitted, while the Parent WebForm Activity will contain the details about main/parent WebForm submission. Additionally, WebForm Activity form contains subgrid named as "Sub Form Activities" at the bottom of the form. It contains the list of all Activities pointing to child records created within the submission. Each of the Sub Form Activities is presented with the reference to child record created and the child WebForm used for creating the record. Click on any of them will lead to specific Sub Form Activity presenting details about the specific record created within the Sub Form section.



WEBFORM ACTIVITY : INFORMATION

Account WebForm

*Activity Status
Open

*Owner
testVs Testv5

WebForm	Account WebForm		
Regarding Entity Record	Contoso Ltd		
Form Submitted On	2/21/2018 4:17 PM	Record Created On	2/21/2018 4:17 PM
Activity Type	Submission	Parent WebForm Activity	

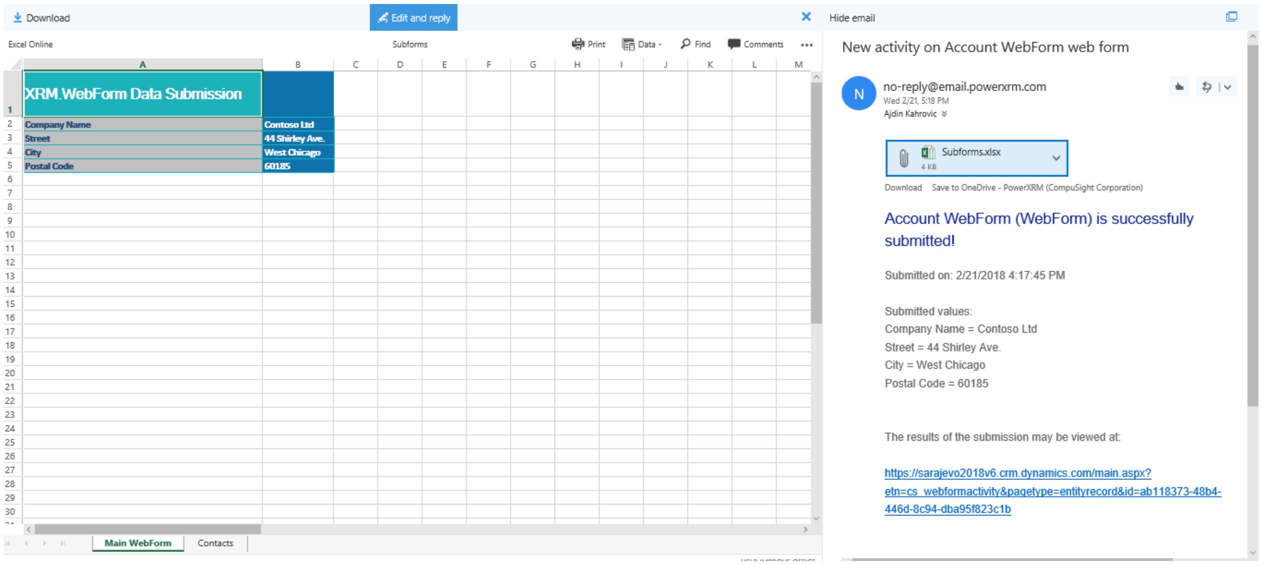
WebForm Activity Details

SubForm Activities

WebForm ↑	Regarding Entity Record
Contact WebForm	james Davison
Contact WebForm	Susan Ward
Contact WebForm	Ajdin Kahrovic

Figure 49 - WebForm Activity with Sub Form Activities

Another way of tracking WebForm submission is an email notification. If the e-mail address for e-mail notifications is set on the main WebForm, e-mail with the report on the submission will be sent to that e-mail address with every WebForm submissions. E-mail address on the child WebForms will be ignored. E-mail notification for submission of the WebForm with Sub Forms will look the same as any other e-mail notification and its body will contain only values entered in the WebForm Fields of the main WebForm. However, there is one difference – the e-mail notification for WebForm with Sub Forms will contain Microsoft Excel spreadsheet named as "Subforms.xlsx" attached to the e-mail. This file will contain several tabs: the first one named as "Main" and for every Sub Form section on the WebForm will be created additional tab. The tabs will be named as Sub Form sections. In the previously presented example, only one tab, named as "Contacts", will be added to the file.



	A	B
1	XRM.WebForm Data Submission	
2	Company Name	Contoso Ltd
3	Street	44 Shirley Ave.
4	City	West Chicago
5	Postal Code	60185

New activity on Account WebForm web form

no-reply@email.powerxrm.com
Wed 2/21, 5:18 PM
Ajdin Kahrovic

Subforms.xlsx
4 KB

Download Save to OneDrive - PowerXRM (CompuSight Corporation)

Account WebForm (WebForm) is successfully submitted!

Submitted on: 2/21/2018 4:17:45 PM

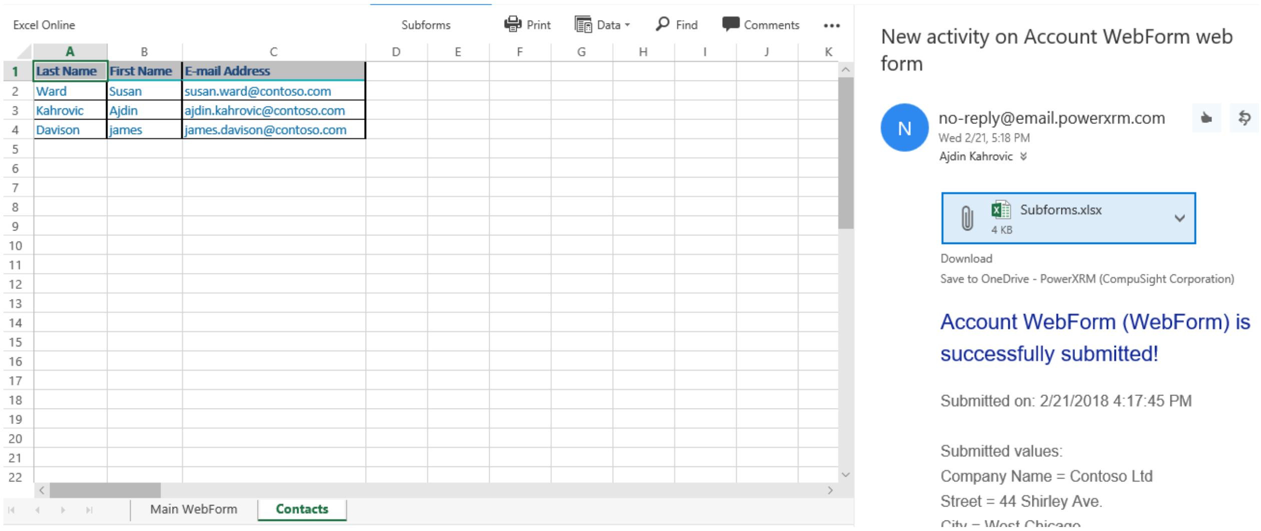
Submitted values:
Company Name = Contoso Ltd
Street = 44 Shirley Ave.
City = West Chicago
Postal Code = 60185

The results of the submission may be viewed at:

https://sarajevo2018v6.crm.dynamics.com/main.aspx?etn=cs_webformactivity&pagetype=entityrecord&id=ab118373-48b4-446d-8c94-dba95f823c1b

Figure 50 - E-mail notification on WebForm submission with Sub Form

The main tab will contain the list of fields on the main WebForm in the first column with the corresponding values entered in the fields in the second column. Tabs showing Sub Form submissions will have slightly different organization. All WebForm fields will be written in the first row, while every following row will contain data on every created record within that Sub Form section. The data will be spread across columns so to match WebForm fields. Please refer to the following example:



Last Name	First Name	E-mail Address
Ward	Susan	susan.ward@contoso.com
Kahrovic	Ajdin	ajdin.kahrovic@contoso.com
Davison	james	james.davison@contoso.com

New activity on Account WebForm web form

no-reply@email.powerxrm.com
Wed 2/21, 5:18 PM
Ajdin Kahrovic

Subforms.xlsx
4 KB

Download
Save to OneDrive - PowerXRM (CompuSight Corporation)

Account WebForm (WebForm) is successfully submitted!

Submitted on: 2/21/2018 4:17:45 PM

Submitted values:
Company Name = Contoso Ltd
Street = 44 Shirley Ave.
City = West Chicago

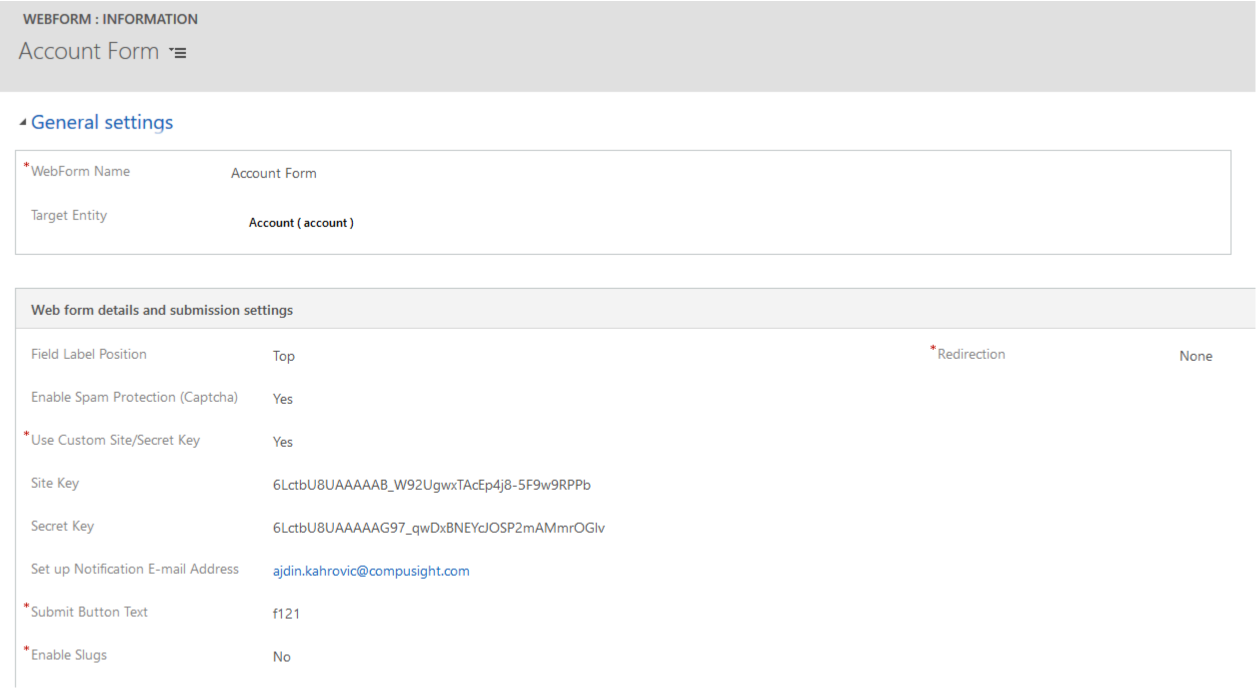
Figure 51 - Spreadsheet showing information on Sub Form data

Server-side reCAPTCHA validation

The last major feature of XRM.WebForm PRO is server-side reCAPTCHA validation. XRM.WebForm offers only client-side validation, while PRO version makes WebForm submissions even more safe with introduction of server-side validation.

Validating reCAPTCHA on client side requires site key and validating reCAPTCHA on server side requires secret key. They are both obtained here: https://www.google.com/recaptcha and they are both linked to domain on which the reCAPTCHA will be placed. In XRM.WebForm Basic version, only client-side validation is implemented and therefore, only site key needs to be specified. Another condition under which the site key is required is that the WebForm is deployed as HTML to parent website. Otherwise, if the WebForm is deployed as URL or Iframe, site key is present on XRM.WebForm Web service and registration of reCAPTCHA (with site key specification) is not required. On basic version of XRM.WebForm, site key is specified on Preview & Deploy modal, when the WebForm is published with "Enable Spam Protection" option checked and "HTML" button is clicked. Then, WebForm editor needs to specify site key of domain on the parent website.

In XRM.WebForm PRO, site and secret keys are requested to be specified and they are entered on the form of WebForm, under "Web form details and submission settings" tab and not on Preview & Deploy modal. If "Enable Spam Protection (Captcha)" option is set "Yes", then another true/false field will appear beneath. This field is labeled as "Use Custom Site/Secret Key" and it denotes WebForm deployment style. If you plan to deploy WebForm as URL/Iframe, select "No" and then site key and secret key of XRM.WebForm will be used for both, client and server-side validation. On the other side, if you plan to deploy WebForm to the website by pasting its HTML there, then you should answer "Yes", so you can specify custom site and secret keys. Changing this option to "Yes" will add additional two fields beneath: Site key and Secret key. Both of them can be found on: https://www.google.com/recaptcha, when a domain is registered for usage of reCAPTCHA. If you choose not to specify custom site/secret key and you still have reCAPTCHA on the WebForm (by selecting "Yes" option on field "Enable Spam Protection (Captcha)"), on Preview & Deploy modal, there will be only two deployment options: URL and Iframe.



WEBFORM : INFORMATION

Account Form

General settings

*WebForm Name	Account Form
Target Entity	Account (account)

Web form details and submission settings

Field Label Position	Top	*Redirection	None
Enable Spam Protection (Captcha)	Yes		
*Use Custom Site/Secret Key	Yes		
Site Key	6LctbU8UAAAAAB_W92UgwxTAcEp4j8-5F9w9RPPb		
Secret Key	6LctbU8UAAAAAG97_qwDxBNEYcJOSP2mAMmrOGlv		
Set up Notification E-mail Address	ajdin.kahrovic@compusight.com		
*Submit Button Text	f121		
*Enable Slugs	No		

Figure 52 - Configuring reCAPTCHA site and secret keys

With this easy step, client and server-side validation of reCAPTCHA are configured. WebForm visitor will not be able to submit the WebForm without passing client-side validation. When the submission gets to XRM.WebForm service, it will be checked once again against secret key and if the submission is not valid, it will be rejected. WebForm visitor will be informed that the submission failed and asked to repeat it. WebForm editor will not be spammed by e-mail nor in CRM making this one of the safest and spam-free products across the whole market of website and Dynamics 365/CRM integrations.

Solution Package Information

For more details regarding the XRM.WebForm solution, please visit:

http://www.powerxrm.com/xrmwebform

For more information regarding User Guide, see: Installation and Configuration Guide

For more details regarding CRM Solution Packages please visit the following documentation on MSDN http://msdn.microsoft.com/en-us/library/gg334530

or contact PowerXRM at:

http://www.powerxrm.com/contact

contact@powerxrm.com