

**PLEODATA**

Empowering Enterprises  
for Greater Success

Resource Management System User Guide v1.0

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PleoData Resource  
Management System User Guide

VERSION: 1.0

AMOS TAN

## Table of Contents

Introduction .....	3
Overview .....	3
Multi-Tenancy Support.....	3
Pre-requisites.....	3
Chapter 1: Room Booking .....	4
Dashboard .....	4
Room Booking Calendar .....	8
Manage Room Bookings .....	11
Manage Rooms .....	13
Chapter 2: Resource Booking.....	16
Book Resource .....	16
Resource Booking Calendar .....	18
Manage Resource Bookings .....	20
Manage Resources .....	21
Chapter 3: Reports .....	24
Room Bookings .....	24
Resource Bookings .....	25
Chapter 4: Analytics - Room Bookings.....	27
Yearly Comparison .....	27
KPI Charts .....	27
Popular Rooms .....	28
Booking Breakdown .....	29
Chapter 5: Administration .....	30
Manager Users .....	30
Manage Locations .....	32
Manage Settings .....	32

## Introduction

### Overview

PleoData Resource Management System is a meeting room and resource booking web application. Targeting businesses who need to have an effective way to manage meeting rooms and resources (e.g. audio-video equipment), and share with any O365 users.

It is a Software-as-a-Service application ("Service") hosted on Microsoft Azure and available to users as a paid subscription. We provide 3 types of subscription; "Lite", "Standard" and "Professional" with different pricing tiers. And for each subscription, the pricing is also based on the number of user licenses that the customer subscribed.

Depending on your subscription type, you may not see all functionalities described in this user guide when you sign-in to the application.

### Multi-Tenancy Support

The application is built with multi-tenancy support. Each customer subscription is associated with one tenant. And each tenant has its own application database.

When a tenancy is first created, a tenant administrator account ("Tenant Admin") will be created for the customer. The customer representative can then use this Tenant Admin account to create other user accounts. For more details, please refer to [Chapter 5: Administration, Manage Users](#).

### Pre-requisites

Below are the pre-requisites for accessing and using the application;

- a. A valid subscription with PleoData.
- b. Users need to have a Microsoft user account (for example O365 account) and a tenant user account with the same login name as their Microsoft user account.
- c. Internet access to Microsoft Azure.
- d. The application does not support Microsoft Internet Explorer 10 and below.

## Chapter 1: Room Booking

### Dashboard

When you sign in to the application, you will see the Dashboard page (see figure 1.1 below). This page provides a holistic view of your current room bookings and will allow you to accomplish most of your room booking tasks.

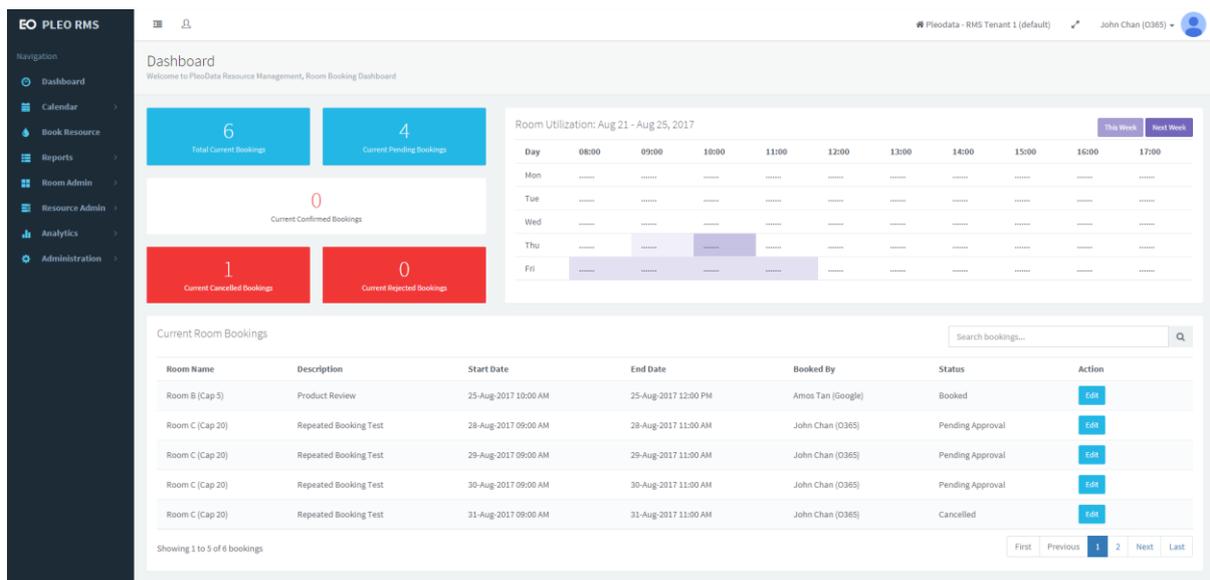


Figure 1.1: Dashboard Page

All application pages have the familiar 2-column page layout beneath a common header. With a left navigation column ("Left Menu") and a wider right column for dynamic content ("main panel").

In the Dashboard page, on the top-left corner of main panel, there are 5 stats widgets that display the following statistics for the sign-in user current room bookings;

- Total Current Bookings** – these are bookings with start date, equal or greater than the current date.
- Current Pending Bookings** - these are current bookings for rooms that require booking approval, and are pending approval by the facility administrators.
- Current Confirmed Bookings** – these are current bookings that have been confirmed.
- Current Cancelled Bookings** – these are current bookings that have been cancelled.
- Current Rejected Bookings** – these are current bookings for rooms that require booking approval, and have been rejected by the facility administrators.

The statistics in the widgets are updated when the sign-in user updates any room booking (for example, when the user cancels a room booking).

The top-right corner of the main panel, contains the Room Utilization chart (see figure 1.2 below).

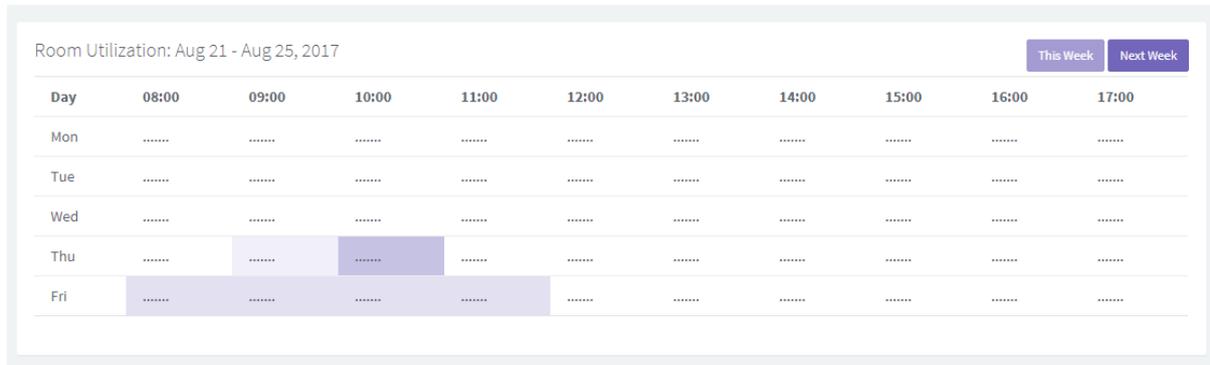


Figure 1.2: Room Utilization Chart

This chart displays the weekly room utilization by hourly timeslots (8 am to 6 pm) and the day of the week, for the entire tenant. By default, the current week room utilization data is displayed. You can however click on the "Next Week" button on the chart, to view next week utilization data.

The darkness of each cell background colour, presents the room utilization rate for a specific timeslot in a week day. A darker background colour indicates a higher room utilization rate. And a white background colour indicates 0 utilization.

When you mouse-over a cell, a tooltip will be displayed indicating the room utilization (booking) rate in percentage (see figure 1.3 below).

With these visual clues, you will be able to tell in a glance what are timeslots with available rooms for booking.

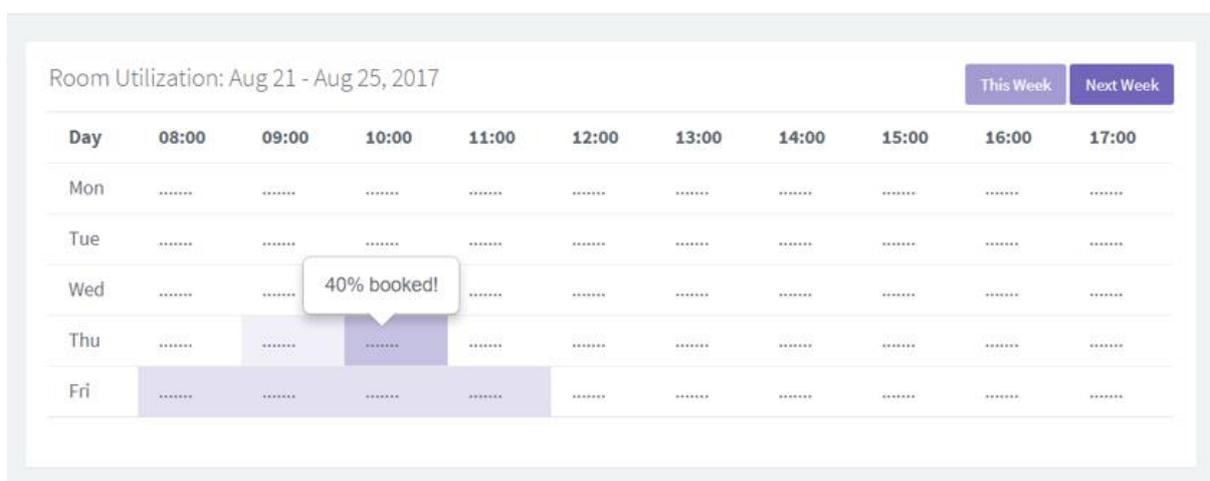


Figure 1.3: Room Utilization Chart – Tooltip

When you click on a timeslot, and the statistics widgets will be replaced by the Available Rooms widget (see figure 1.4 below).

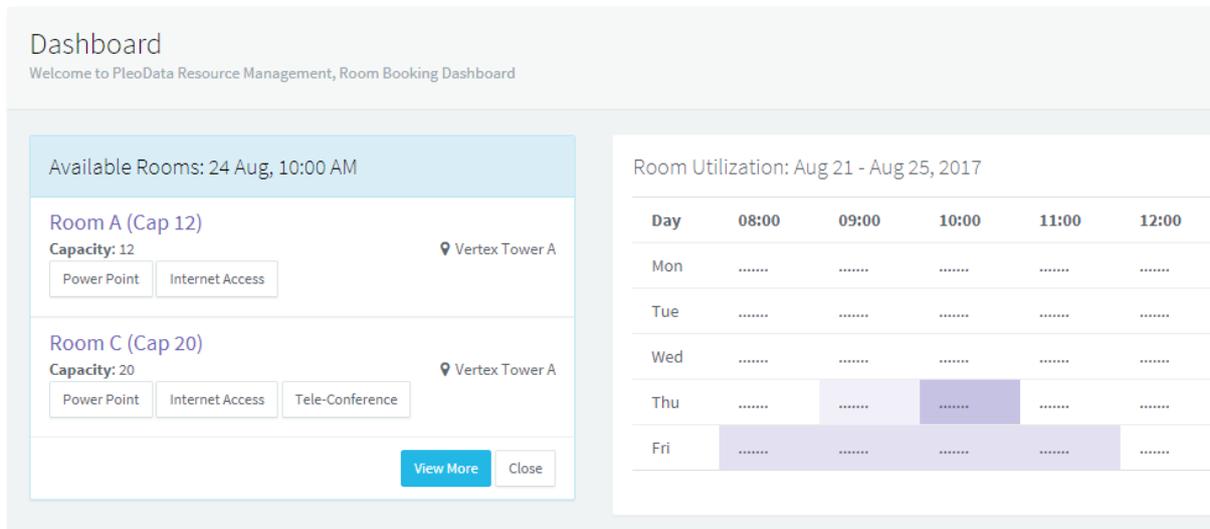


Figure 1.4: Available Rooms Widget

From the Available Rooms widget, you can see the types of rooms (differentiated by capacity, location and fixed equipment) that are available for booking. If there are more than 2 available rooms, you can click on “View More” button to view more available rooms.

You can book a room by clicking on the title of room that you want to book, and the “Create Room Booking” modal dialog will be displayed (see figure 1.5 below).

To submit a room booking, all you need to do, is to enter a title and click on “Create” button.

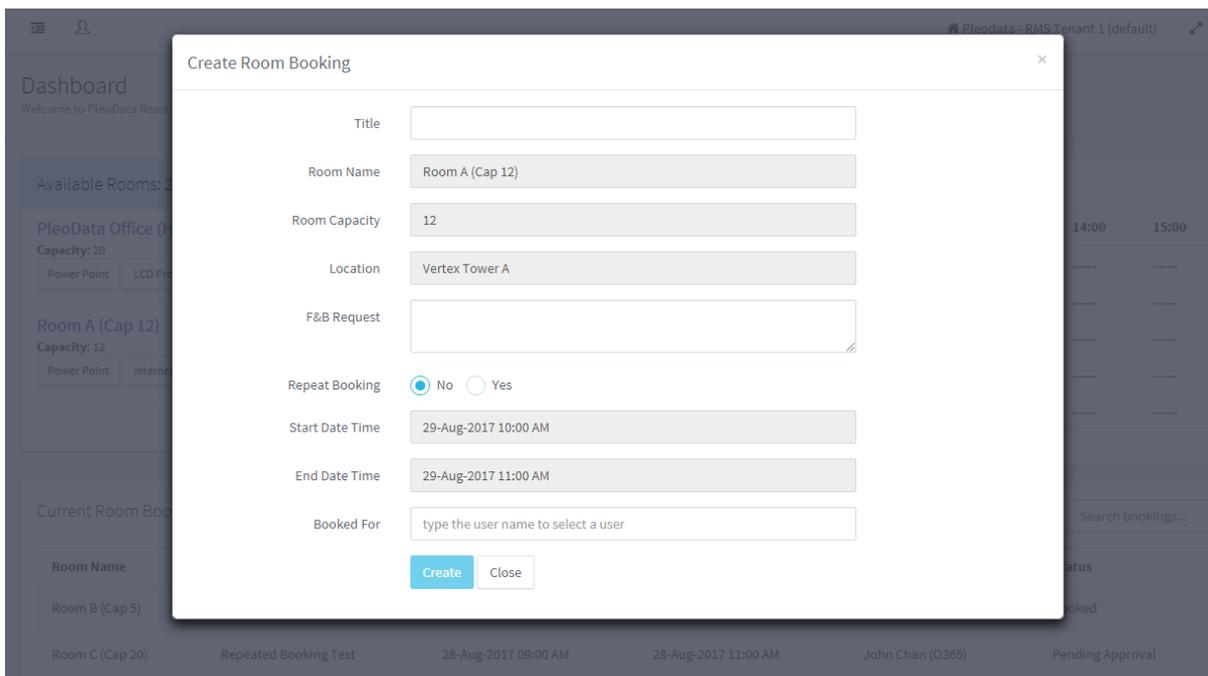


Figure 1.5: Room Booking Modal Dialog

If the create operation is successful, a toaster notification will be displayed indicating that the new room booking has been created successfully. The new booking will also be listed in the Current Room Bookings table beneath the Room Utilization chart (see figure 1.6 below).

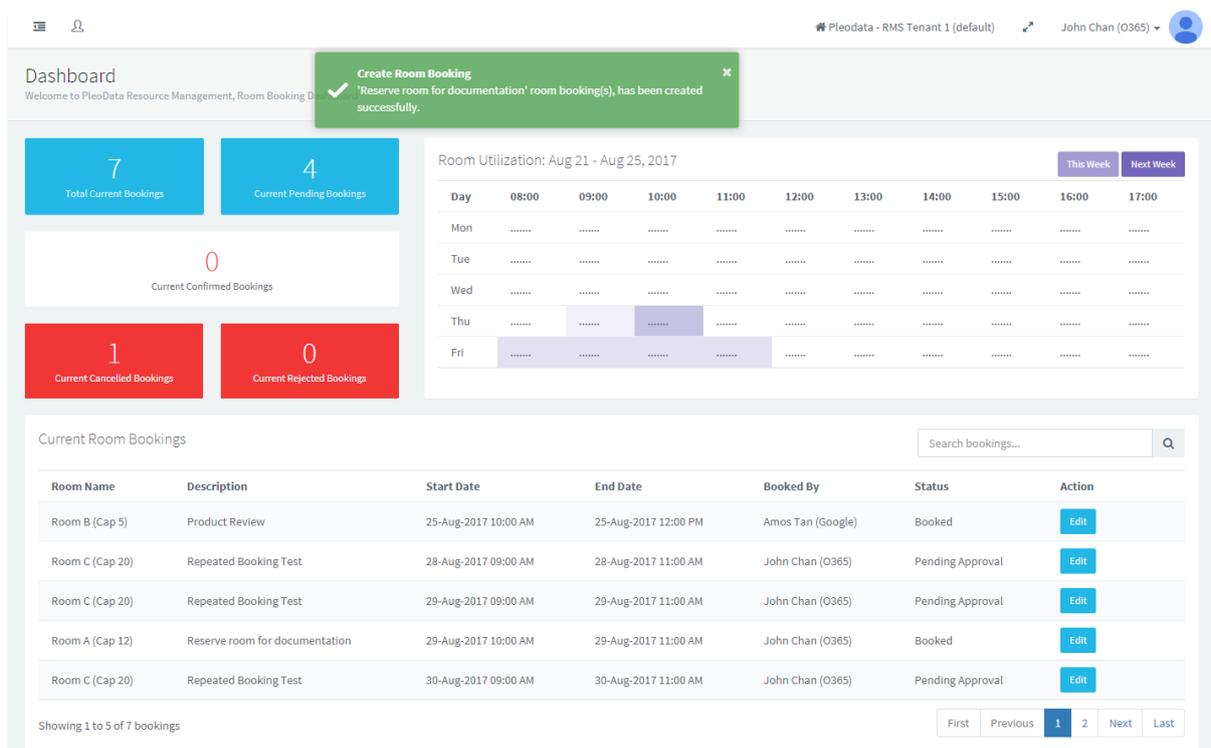


Figure 1.6: Create Booking Success Message & Current Room Bookings Table

If you need to edit a current room booking, you can do so by clicking the "Edit" button for required room booking. And the "Edit Room Booking" modal dialog will be displayed (see figure 1.7 below).

From the modal dialog, you can edit the following booking information;

- Room selection
- Start Date
- Start Time
- End Time
- Booked For

The "Booked For" is an optional field that allows you to specify the user that you want to book the room for. The "Booked For" user and you will have equal rights to edit this booking. The "Booked For" user will be able to view such bookings in their dashboard.

Besides editing the booking information, you can also confirm or cancel the room booking from this modal dialog.

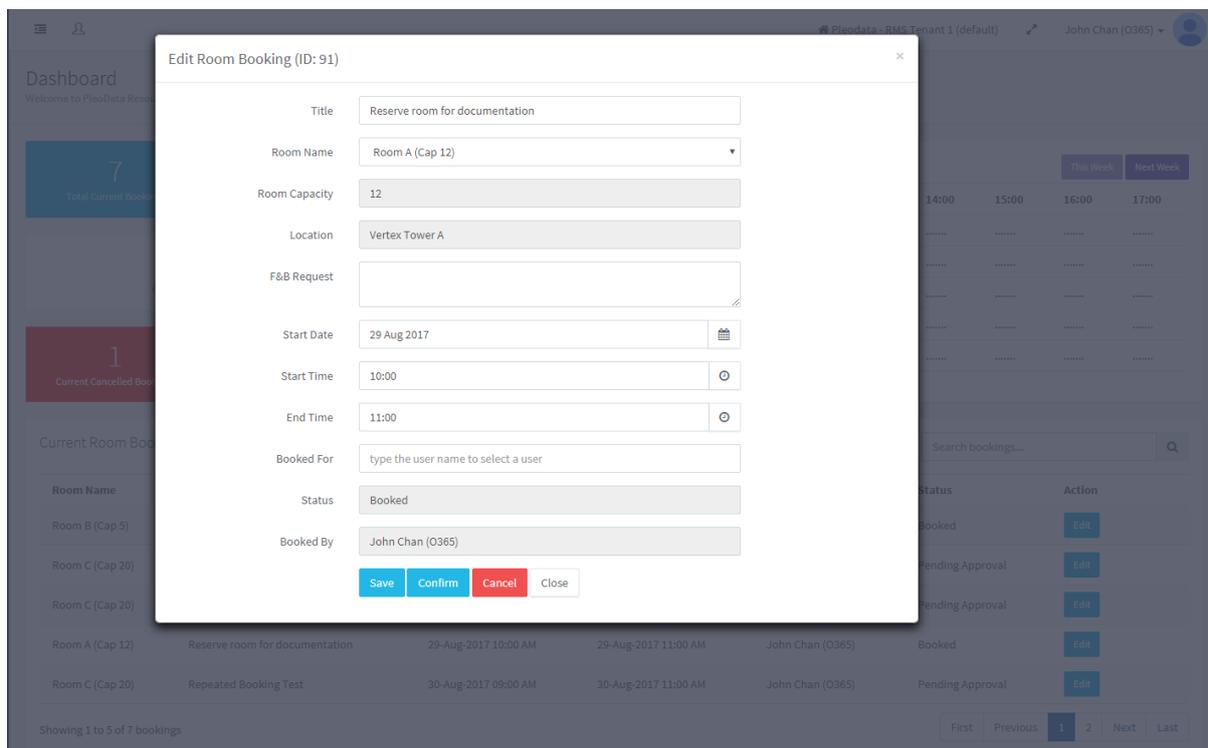


Figure 1.7: Edit Room Booking Modal Dialog

## Room Booking Calendar

Besides the Dashboard page, you can also view room bookings in the Calendar – Room Booking page. You can navigate to this page, by clicking on the Calendar > Room Booking link in the Left Menu (see figure 1.8 below).

By default, this calendar view will display all room bookings for the current month. To view your own bookings only, you can click on “My Bookings” button at the bottom-left corner of main panel. This is a toggle button, clicking on it the second time, will cause the calendar to display all room bookings.

The “Others’ Bookings” toggle button behaves similarly but with the reverse effect.

The calendar will also display holidays based on the Locale application setting (please refer to [Chapter 5: Administration, Manage Settings](#) section for more details).

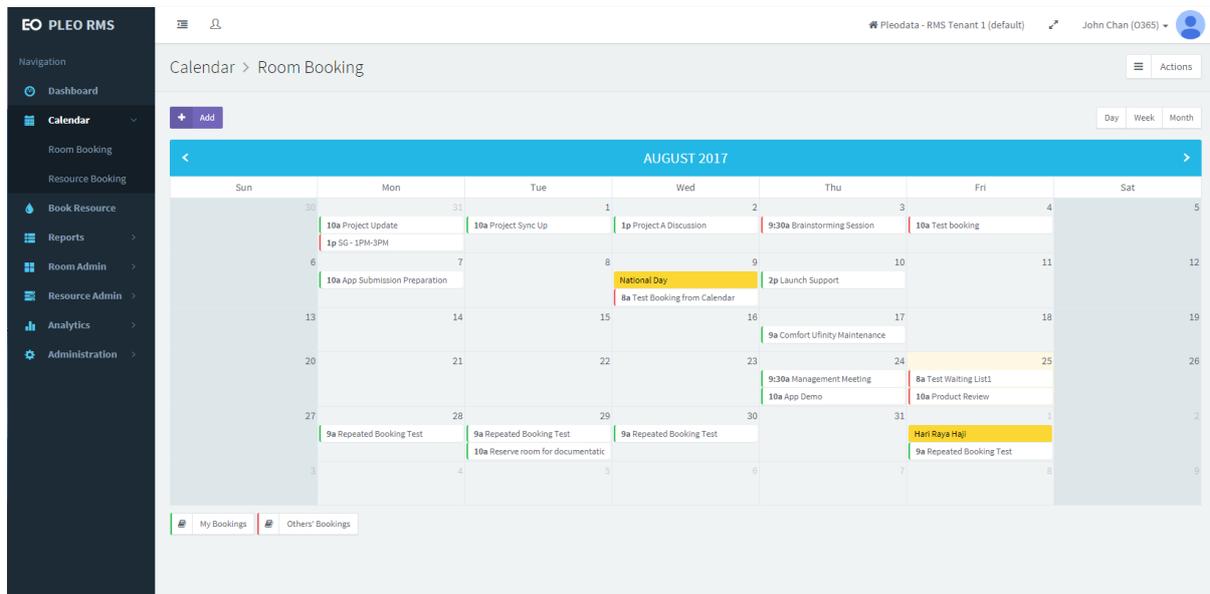


Figure 1.8: Room Booking Calendar

When you mouse-over a room booking entry, a tooltip will appear, providing a summary of the booking (see figure 1.9 below).

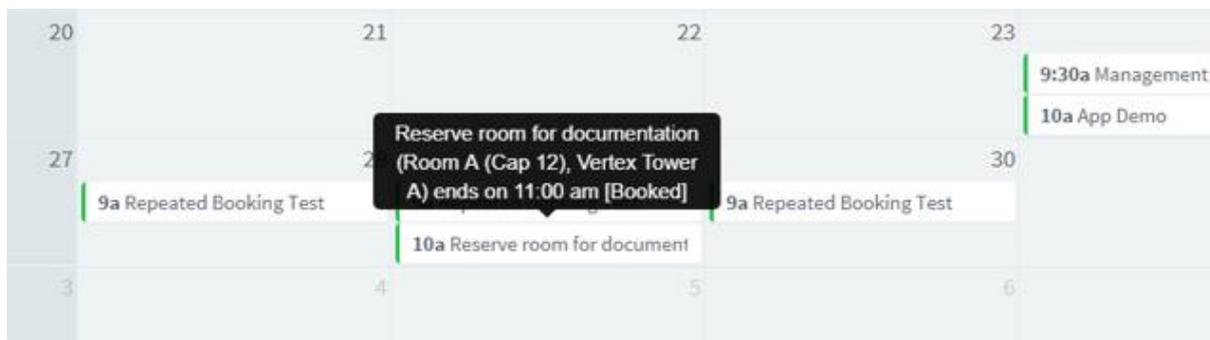


Figure 1.9: Calendar - Room Booking Tooltip

To view more details for a room booking, you can click on the room booking entry and a modal dialog, like the one in the Dashboard page (see figure 1.7), will be displayed.

If the booking belongs to another user, the modal dialog will not allow you to edit the booking information. And the only visible button is the “Close” button.

You can also create new room booking in this calendar view by clicking on the Add button or double-clicking on a cell in the calendar. The “Create Room Booking” modal dialog like the one in the Dashboard (see figure 1.5) will be displayed.

Alternatively, you can also perform a search for the available rooms to book, by clicking on the “Actions” button on the top-right corner of main panel. And a side panel will appear to the right of the main panel (see figure 1.10 below), showing the “Find Available Rooms” widget.

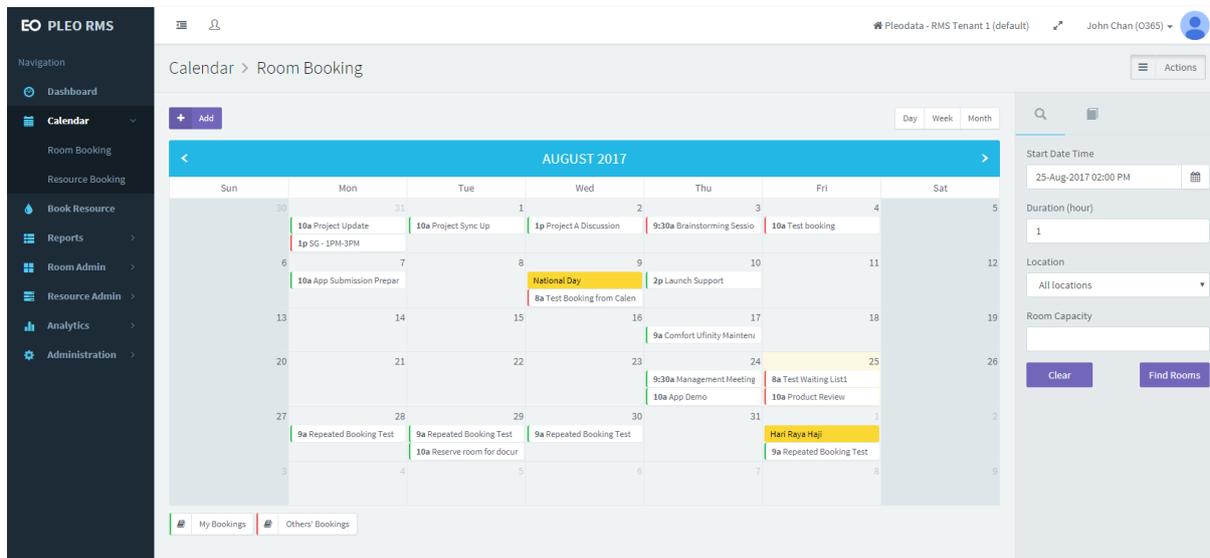


Figure 1.10: Calendar – Search Available Rooms

By default, the Start Date Time will display the current date and nearest hour, Duration will be set to 1 hour and Location is defaulted to “All locations”.

If need be, you can edit these values and indicate the room capacity you require. Once the search criteria are set, you can click on the “Find Rooms” button and the matching available room(s) will be displayed (see figure 1.11 below).

You can book from one of available rooms, by clicking on the “Book” icon for one of the search results. And the familiar “Create Room Booking” modal dialog will be displayed. Fill in the necessary information, and click on the “Create” button to complete the booking action.

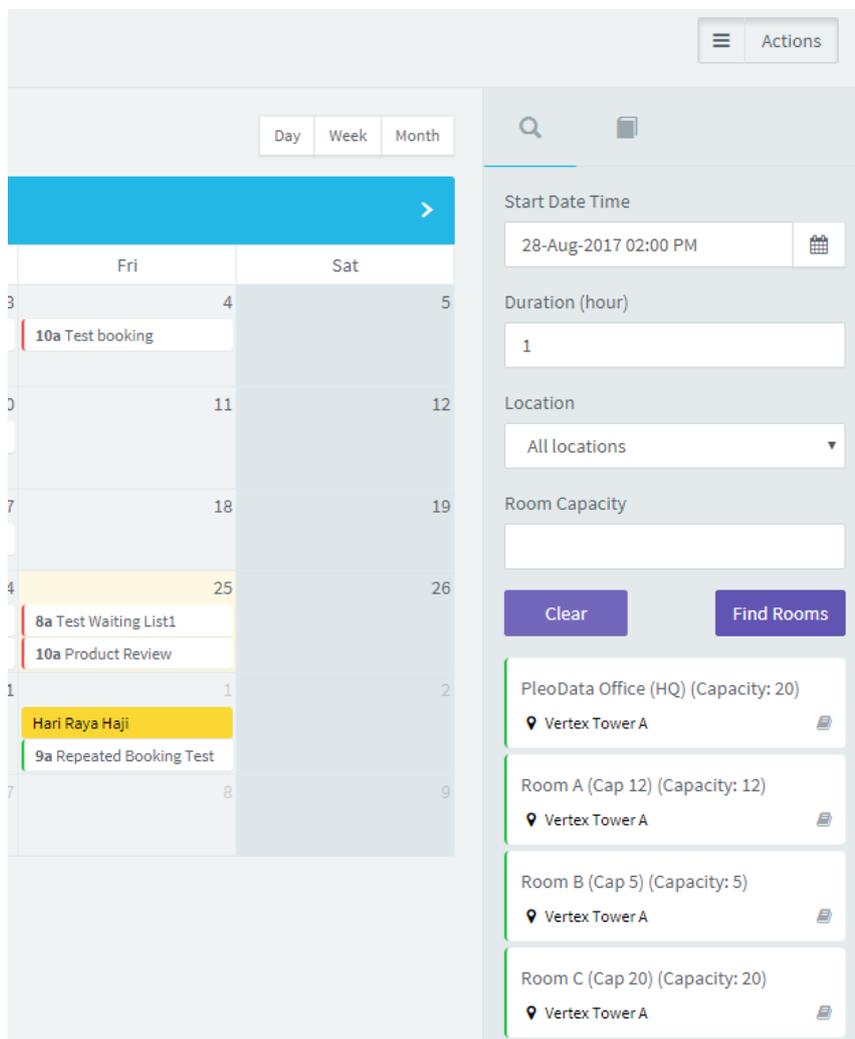


Figure 1.11: Find Available Rooms - Results

## Manage Room Bookings

This page is accessible to users with Administrator or Facility Admin role only. It allows these administrators to edit and delete current room bookings (see figure 1.12 below) even when the bookings belong to other users.

To access this page, you can click on Room Admin > Manage Bookings link in the Left Menu.

**Note:**

The links in the Left Menu are access trimmed according to the sign-in users' role(s). User can only see links to pages that they have access to.

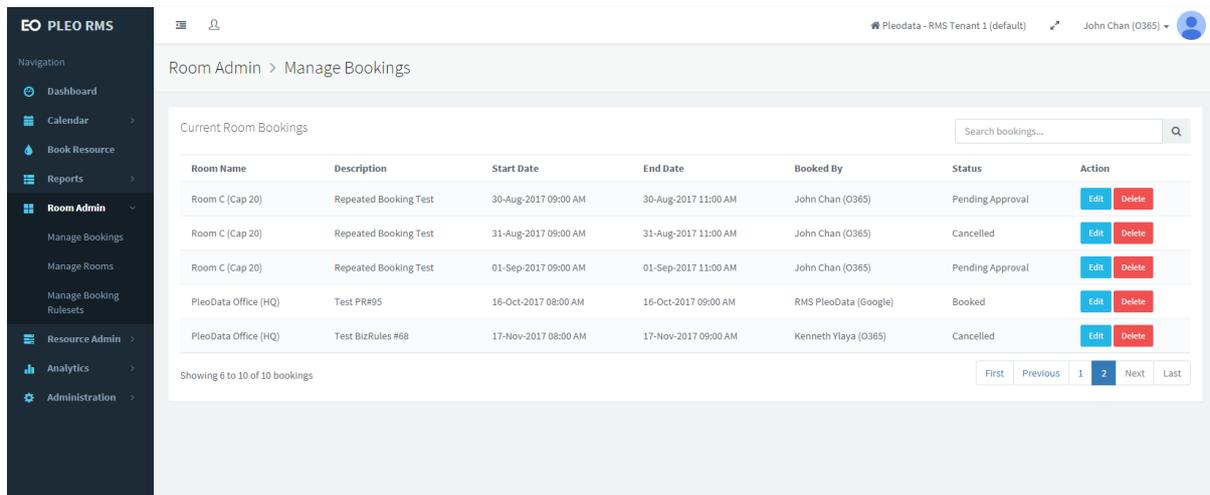


Figure 1.12: Manage Room Bookings

To edit or delete a room booking, you can click on the “Edit” or “Delete” button besides the booking, and the respective modal dialog will be displayed.

For rooms that require booking approval, the “Edit Room Booking” modal dialog will only allow the administrators to either approve or reject the booking (see figure 1.13 below).

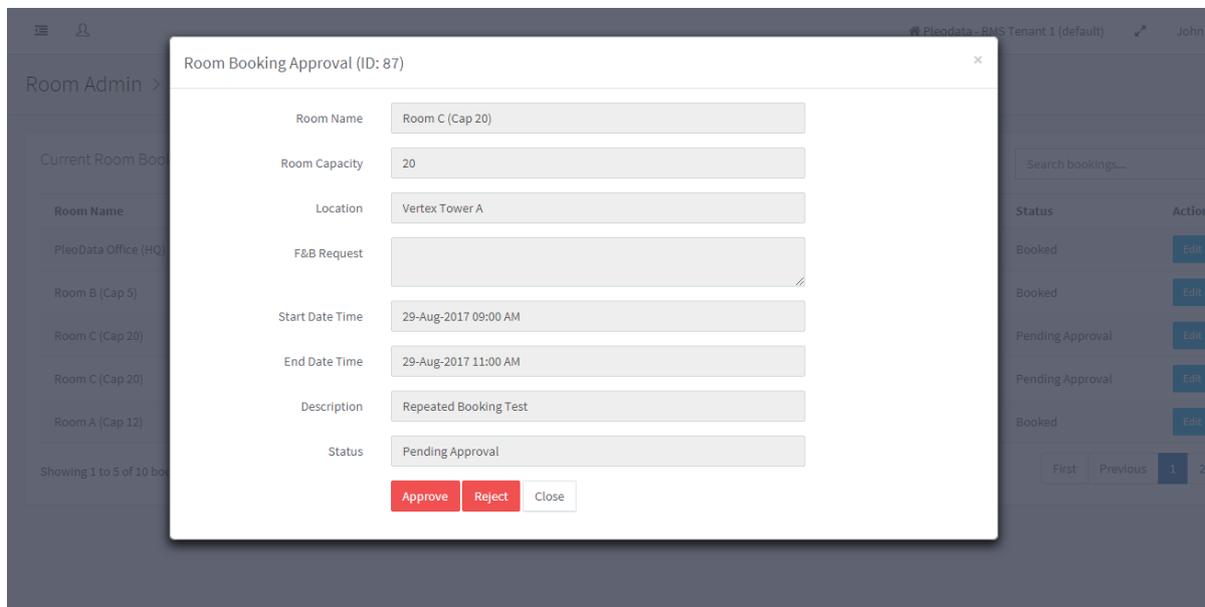


Figure 1.13: Room Booking Approval

**Note:**

Delete room booking function is available to Administrator and Facility Admin users only. Once a room booking is deleted, it will not be visible in the application.

## Manage Rooms

This page is accessible to users with Administrator or Facility Admin role only. It allows these administrators to create, edit and delete rooms (see figure 1.14 below).

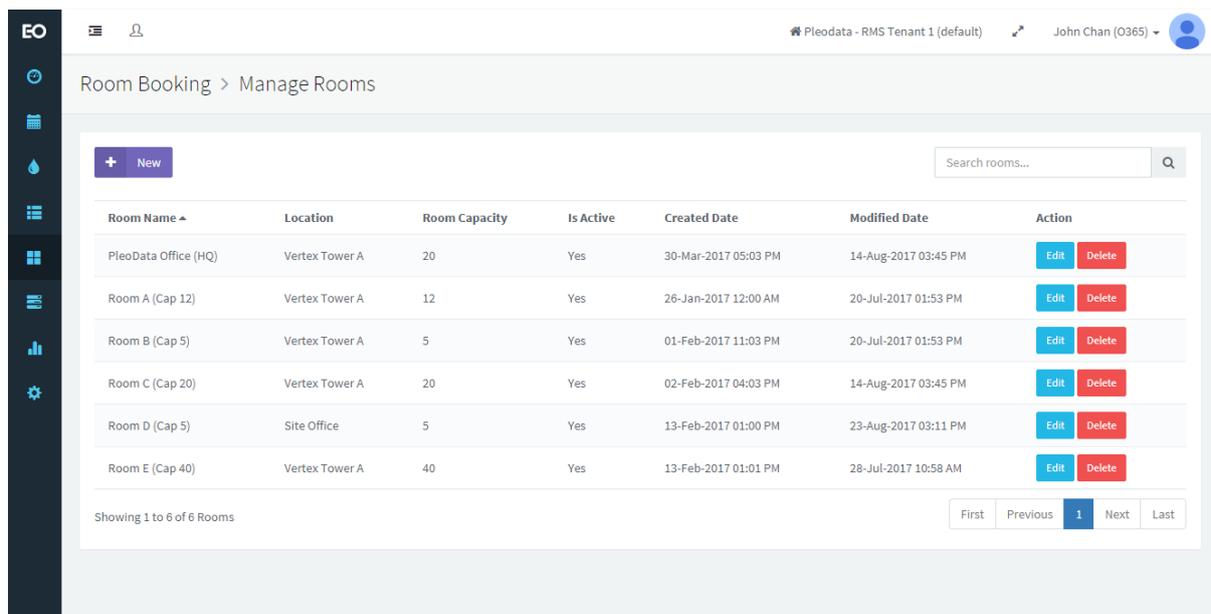


Figure 1.14: Room Admin – Manage Rooms

You can create a new room by clicking on the “New” button at the top-left corner of the main panel. And the “Create Room” modal dialog will be displayed (see figure 1.15 below).

Once you have filled in the necessary information, you can click the “Create” button to create the room.

When you are creating a new room, you can associate an existing room as an adjacent room. This will allow users to book 2 adjacent rooms in a single submission. Typically, these adjacent rooms share a partition wall that can be removed or folded, to form a bigger single room.

You can also specify whether the new room requires booking approval.

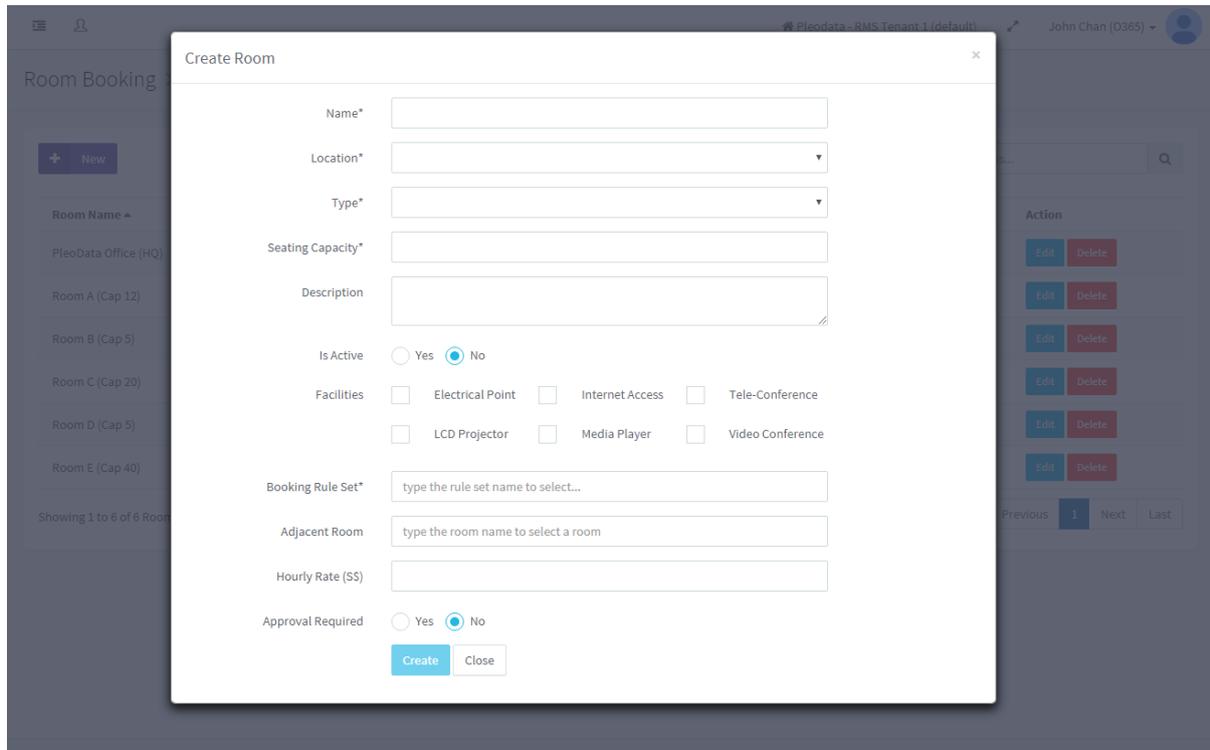


Figure 1.15: Room Admin – Create Room

You can edit a room by clicking on the “Edit” button besides the required room. And the “Edit Room” modal dialog will be displayed (see figure 1.16 below).

Once you have make the necessary changes, you can click on the “Save” button to save the changes.

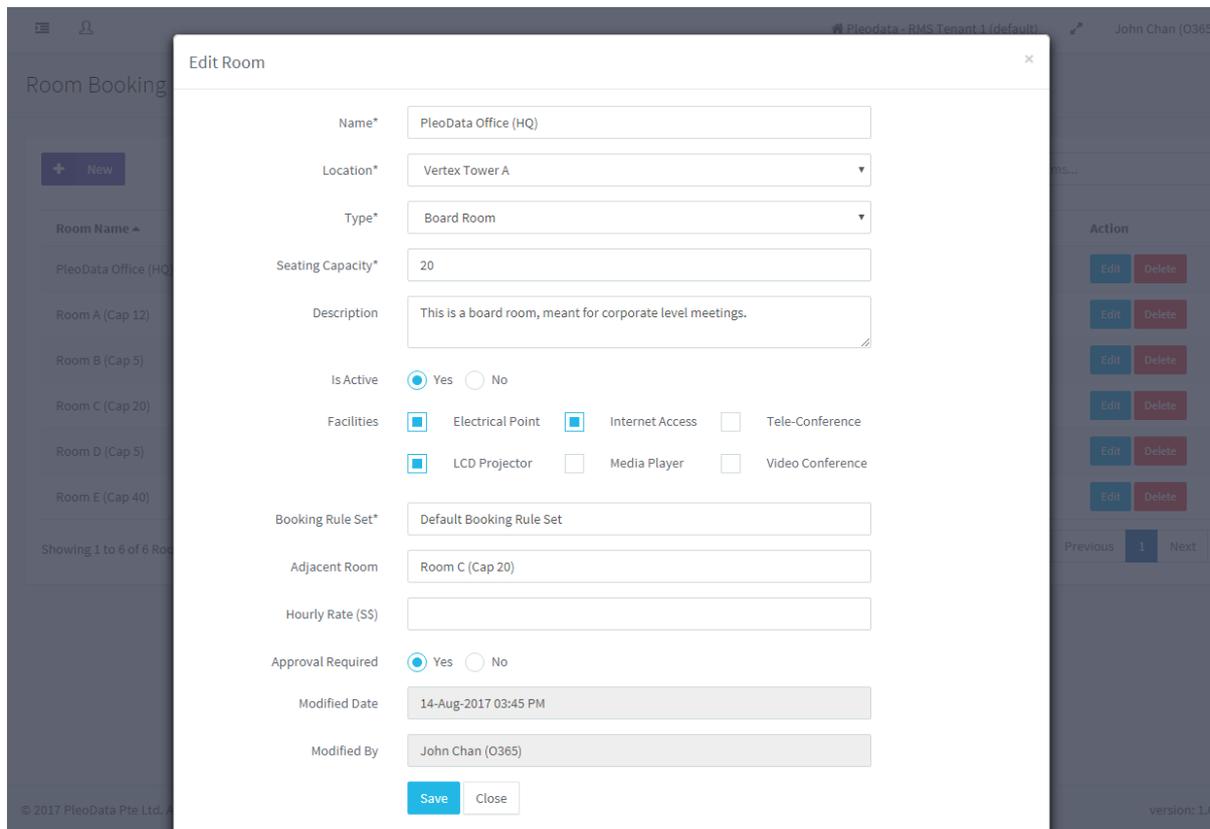


Figure 1.16: Room Admin – Edit Room

Similarly, to delete a room, you can click on the "Delete" button for the required room. And the "Delete Room" modal dialog will be displayed. To complete the delete action, click on the "Delete" button in the modal dialog.

If the operation is successful, a success toaster notification will be displayed.

## Chapter 2: Resource Booking

Besides room booking, the application also allows business to manage shared items (e.g. Audio-video equipment, books etc.) that can be borrowed by their staffs for defined periods.

In our application, the term “Resource” can be used as a general term for facilities such as rooms, and “share items”. However, in the context of the Left Menu and in this chapter, it refers specifically to “shared items”.

The main distinction between room and resource bookings, is that resource booking lifecycle involves the additional process of issuing and returning of booked resources.

### Book Resource

You can search and book available resources in the Book Resource page. This page is accessed by clicking on the “Book Resource” link in the Left Menu (see figure 2.1 below).

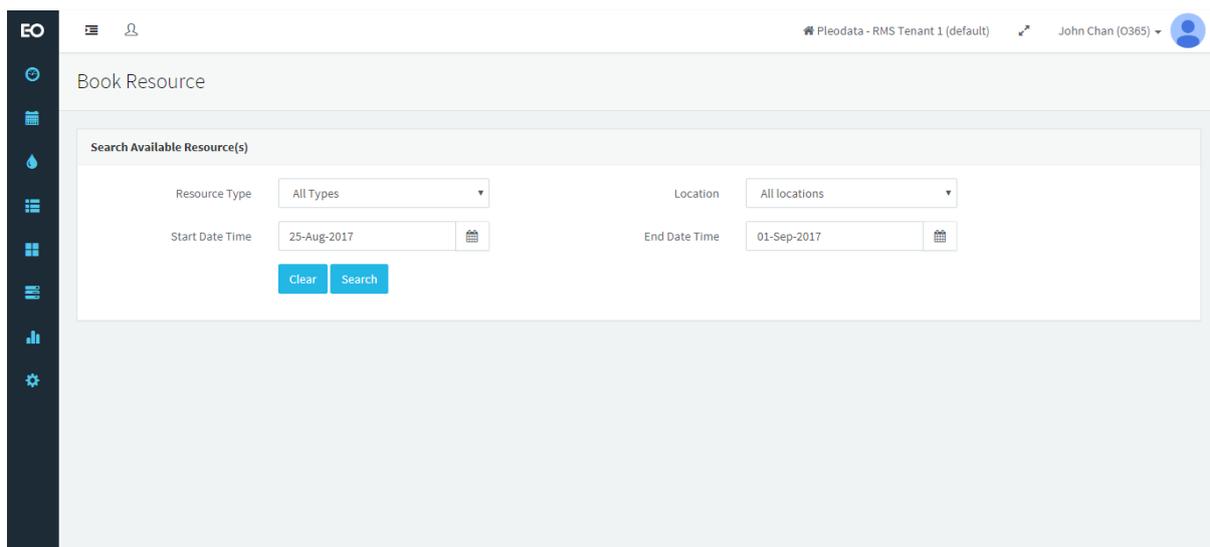


Figure 2.1: Book Resource Page

To find the available resource(s) for required loan period, you can select the required “Resource Type”, and the Start and End date times. Once the search criteria are selected, click on the “Search” button to display the matching available resources.

If there are matching resources that meet your search criteria, the search results will be displayed beneath the “Search Available Resource(s)” box (see figure 2.2 below).

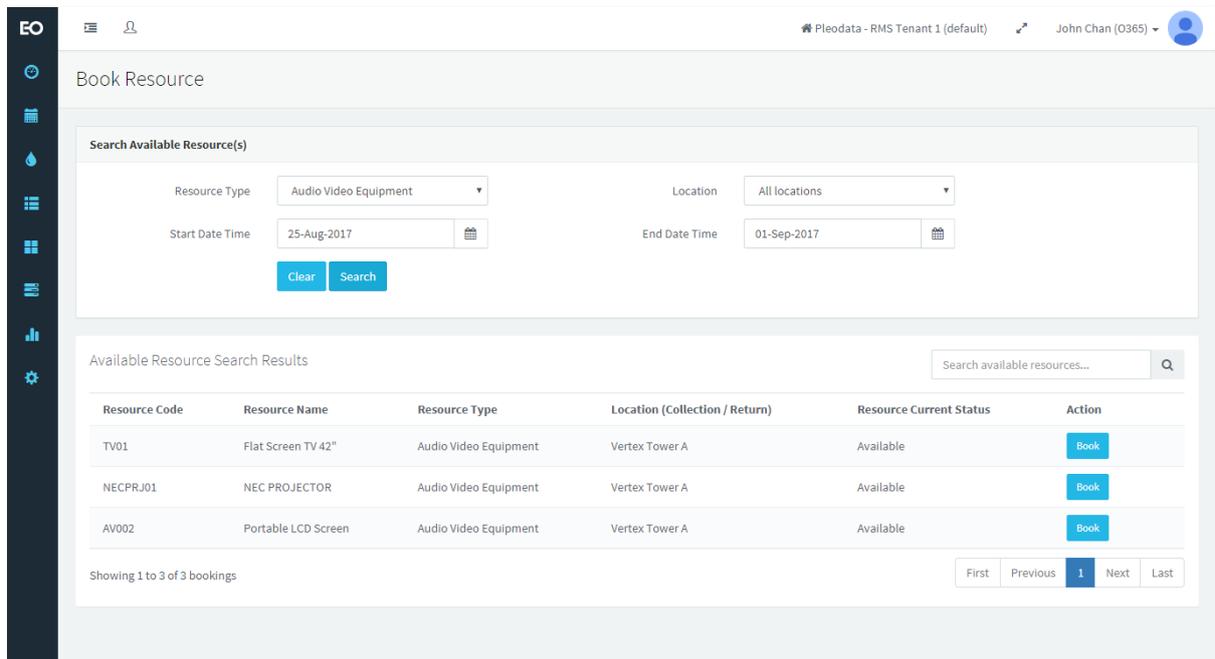


Figure 2.2: Available Resource Search Results

To book a resource, you can click on the "Book" button for required resource. And the "Book Resource" modal dialog will be displayed (see figure 2.3 below). To complete the book action, click on the "Submit" button.

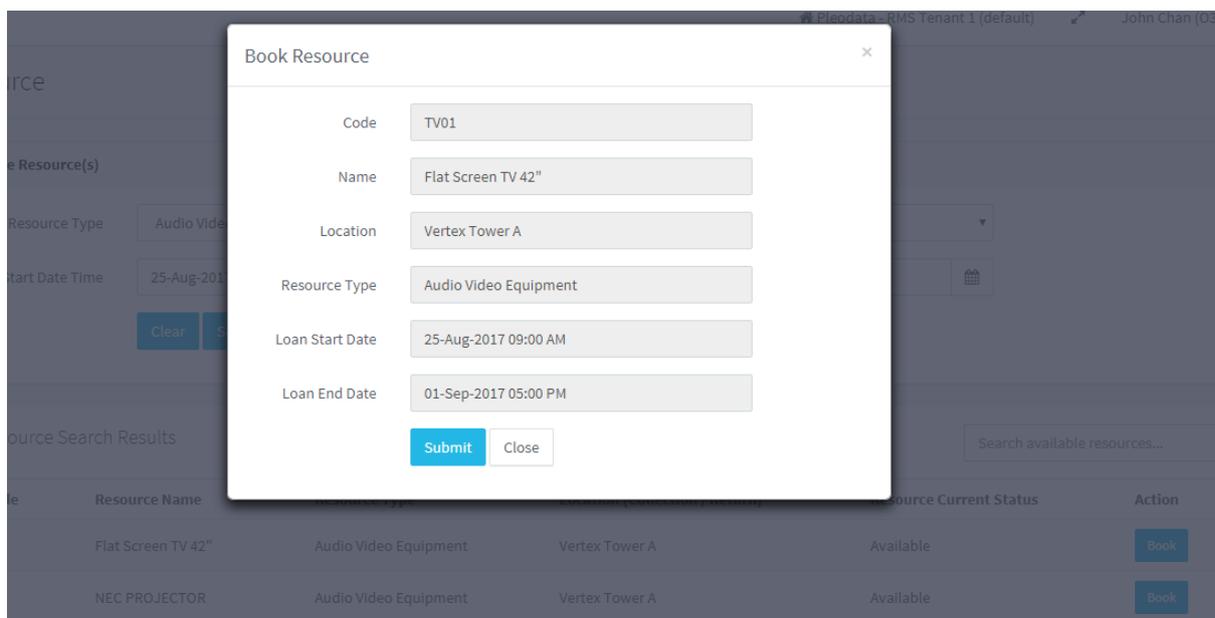


Figure 2.3: Book Resource Modal Dialog

If the booking operation is successful, a success toaster notification will be displayed. And the booked resource will be removed from the “Available Resource Search Results” (see figure 2.4 below).

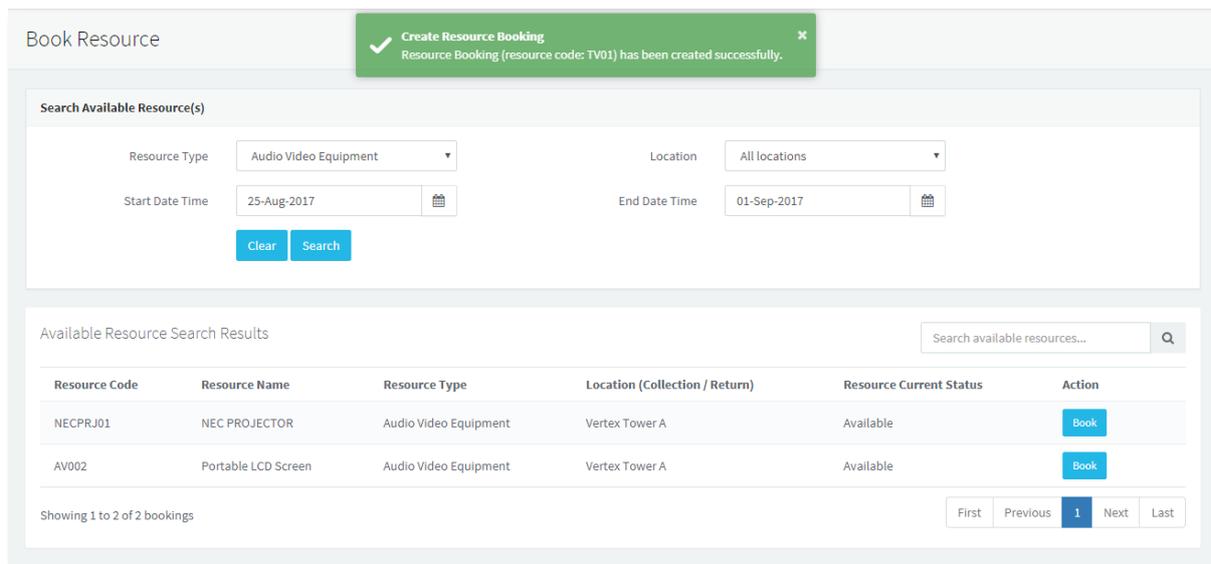


Figure 2.4: Book Resource Success Message

## Resource Booking Calendar

You can view your resource bookings in the Calendar – Resource Booking page. This page can be accessed by clicking on the Calendar > Resource Booking link in the Left Menu (see figure 2.5 below).

This page will only display resource bookings belonging to the sign-in user. Each entry will indicate the name of booked resource and the current booking status e.g. “Reserved”, “Issued” or “Returned”.

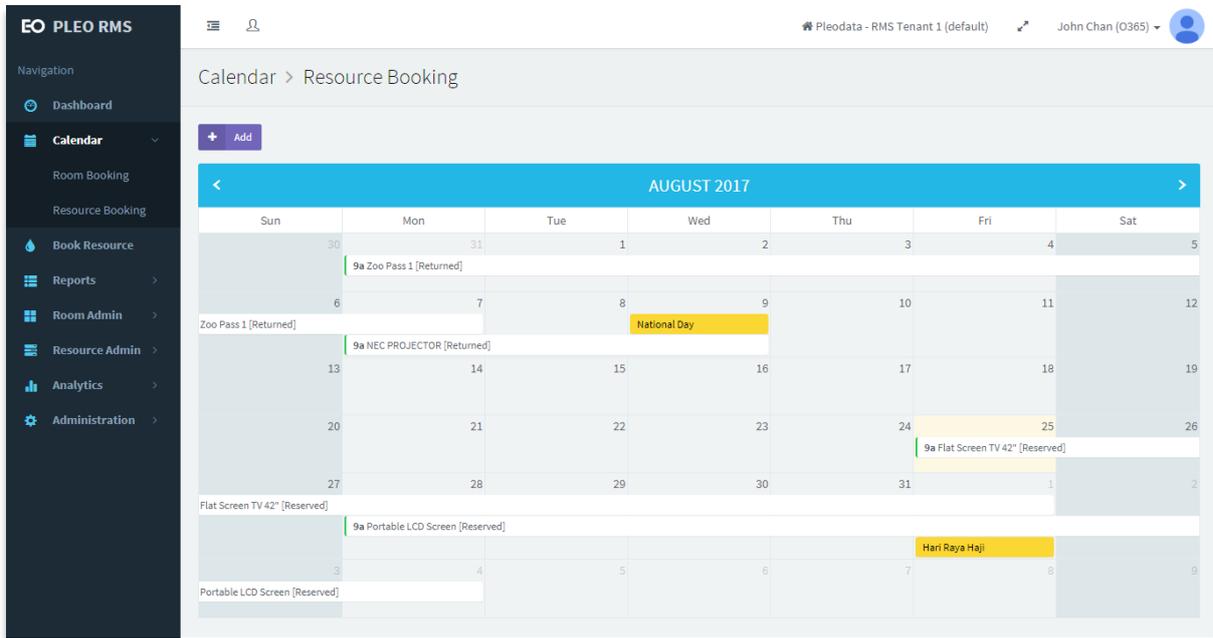


Figure 2.5: Resource Booking Calendar

If you mouse-over an entry, you will see further details regarding the booked resource e.g. the resource code and the due date (see figure 2.6 below).

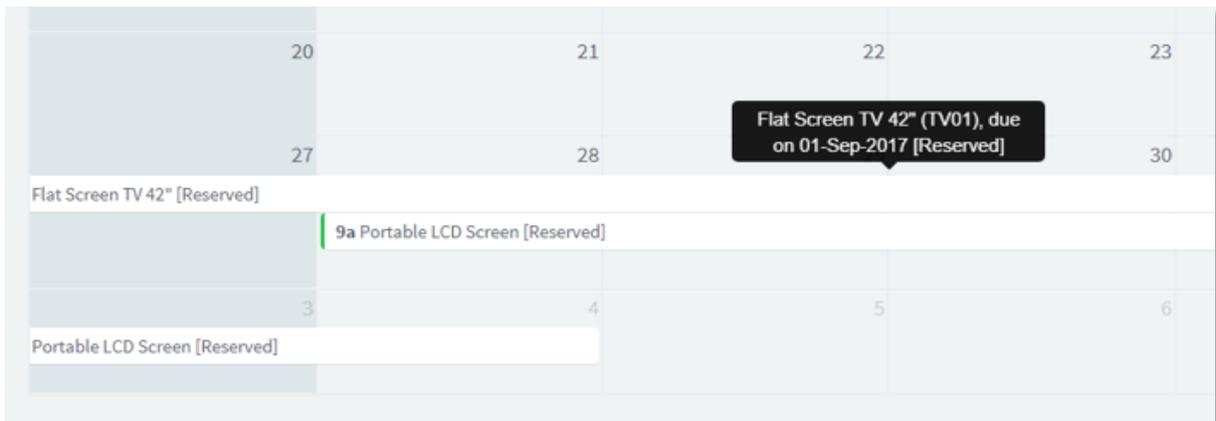


Figure 2.6: Resource Booking Tooltip

To view more details or edit a booking, you can click on the booking entry in the calendar, and the "Edit Resource Booking" modal dialog will be displayed (see figure 2.7 below).

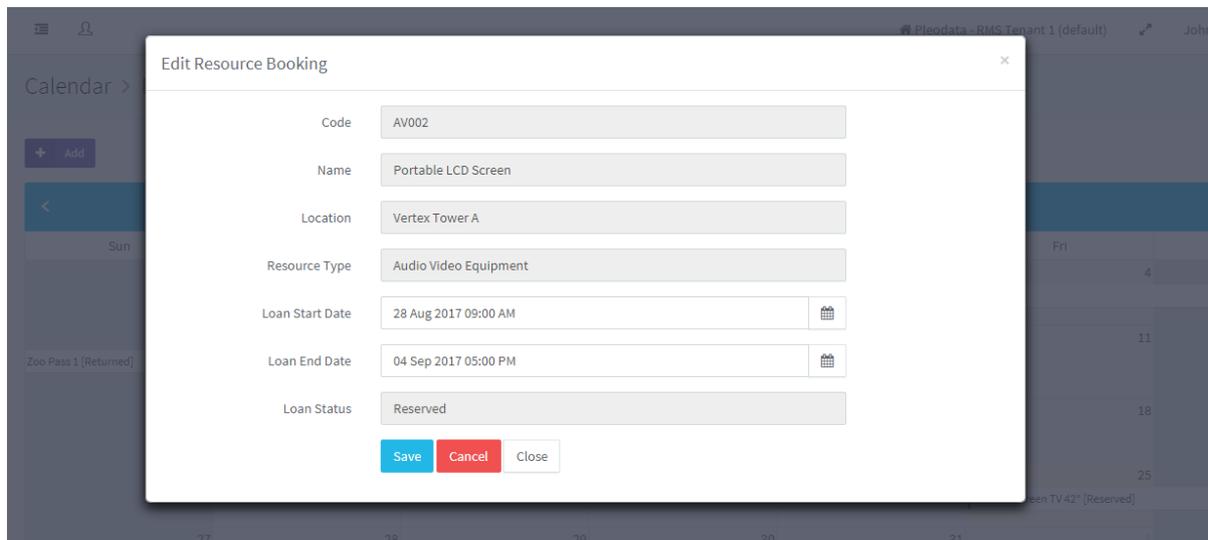


Figure 2.7: Edit Resource Booking

You can edit the loan period or cancel the booking (if the loan status is “Reserved”) in this modal dialog. If you cancel a booking, it will no longer be visible from the calendar.

For bookings with “Issued” or “Returned” status, the modal dialog will only allow you to view the booking details. And only the “Close” button is visible.

## Manage Resource Bookings

This page is accessible to users with Administrator or Resource Admin role only. It allows these administrators to update and delete resource bookings (see figure 2.8 below) even when the bookings belong to other users.

To access this page, you can click on Resource Admin > Manage Bookings link in the Left Menu.

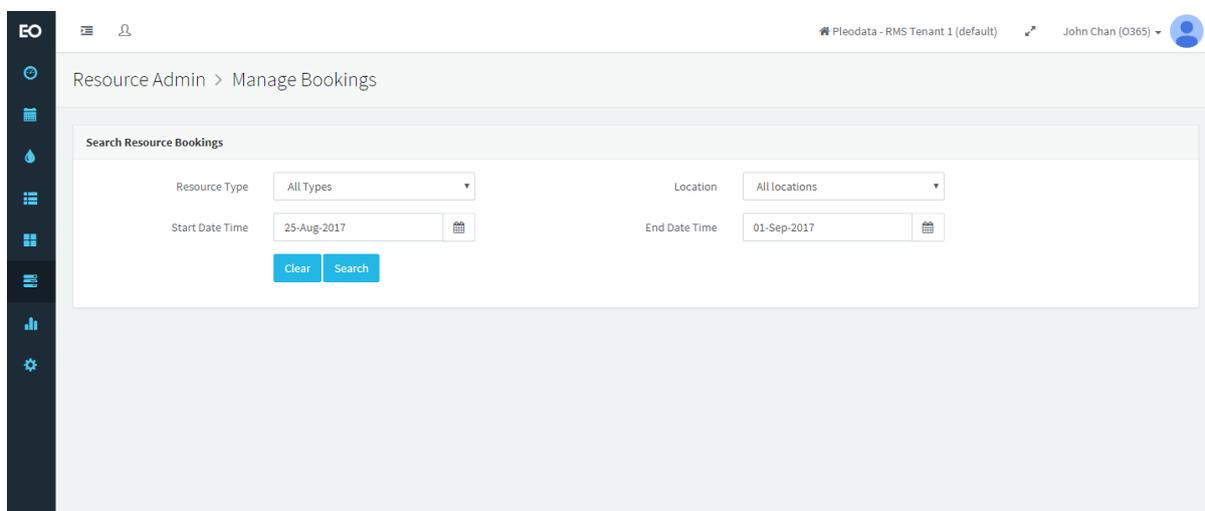


Figure 2.8: Manage Resource Booking

To update a resource booking, you can click on the “Edit” button for the required booking. And the “Update Resource Booking” modal dialog will be displayed (see figure 2.9 below).

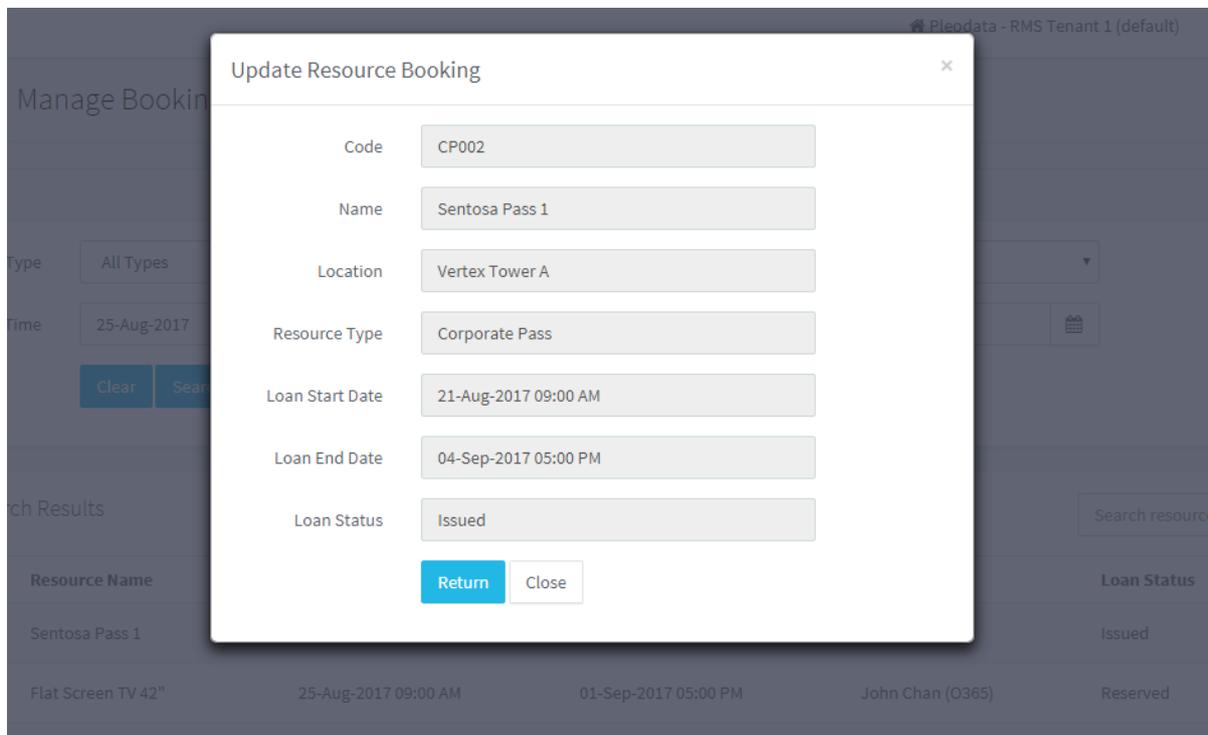


Figure 2.9: Update Resource Booking

The displayed button(s) is dependent on the current booking status. If the status is “Issued” then the administrators can only perform the “Return” action. Or click on the “Closed” button to close the modal dialog without performing any action on the booking.

Similarly, to delete a booking, you can click on the “Delete” button besides the required booking. Note that you can only delete a resource booking when the status is “Reserved”.

## Manage Resources

This page is accessible to users with Administrator or Resource Admin role only. It allows these administrators to create, edit and delete resources (see figure 2.10 below).

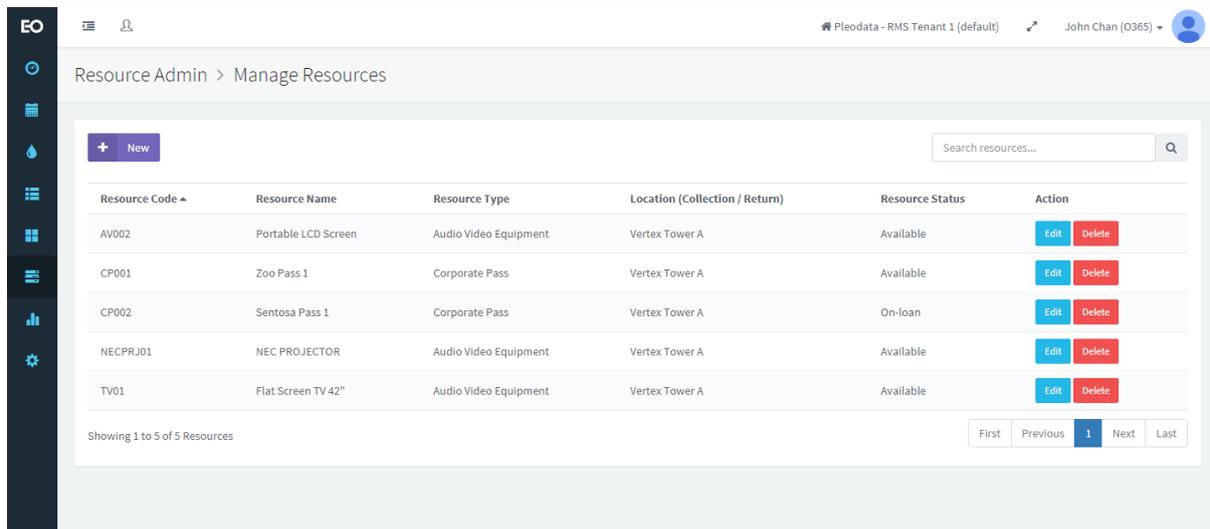


Figure 2.10: Manage Resources

You can create a new resource by clicking on the “New” button at the top-left corner of the main panel. And the “Create Resource” modal dialog will be displayed (see figure 2.11 below).

Once you have filled in the necessary information, you can click the “Create” button to create the new resource.

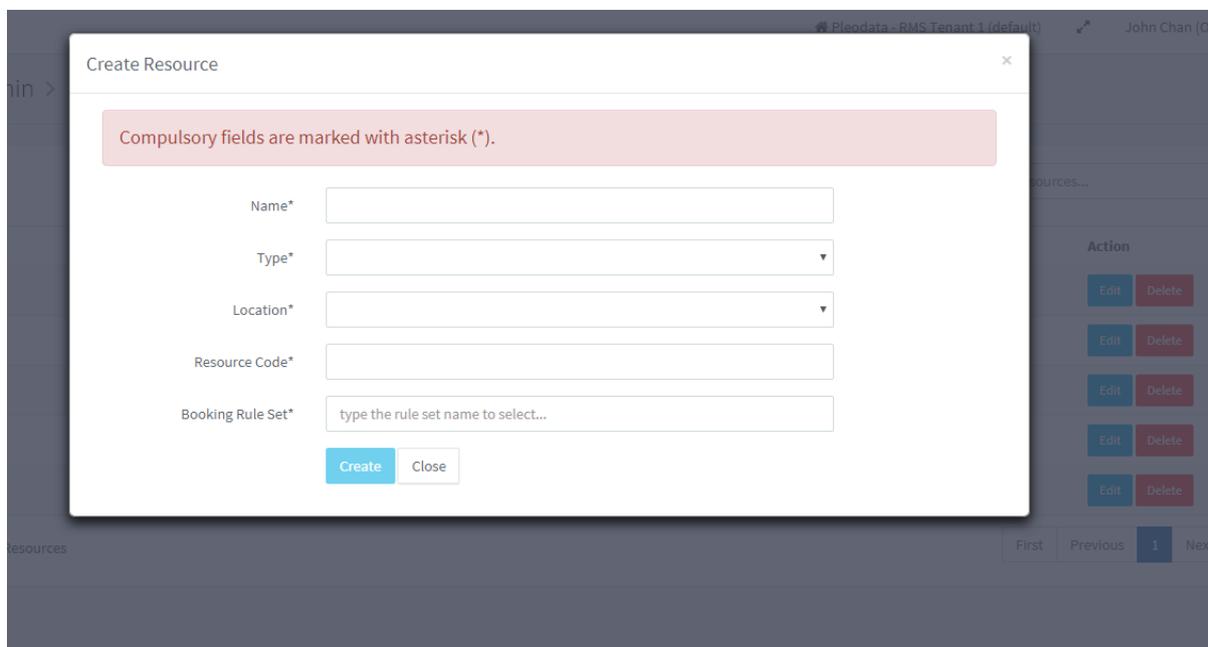


Figure 2.11: Create Resource

You can edit a resource by clicking on the “Edit” button besides the required resource. And the “Edit Resource” modal dialog will be displayed (see figure 2.12 below).

Once you have make the necessary changes, you can click on the “Save” button to save the changes.

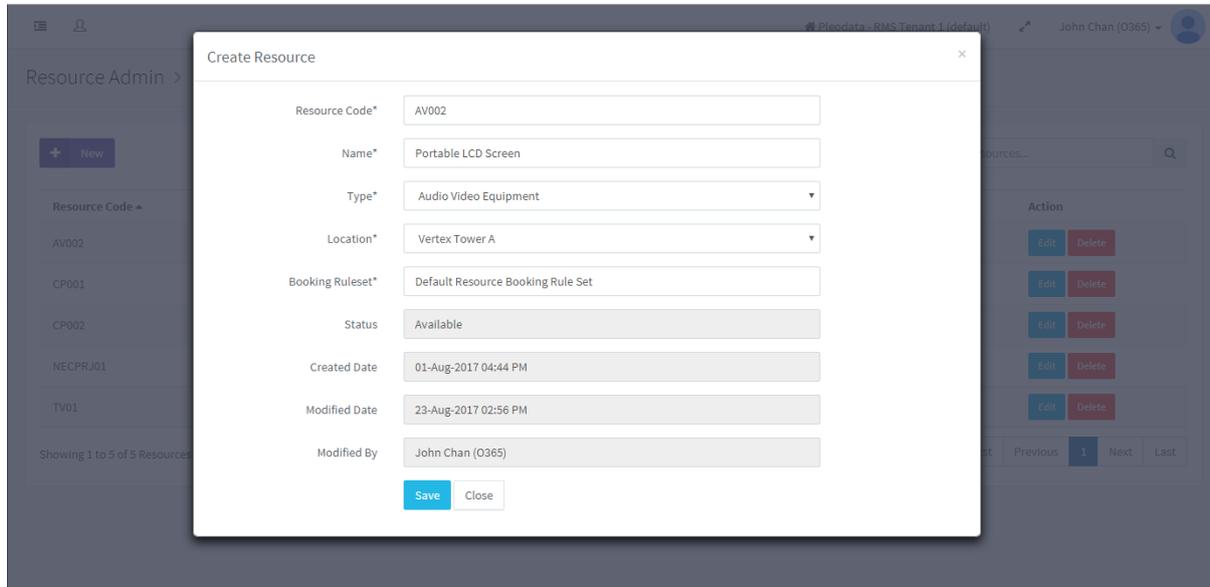


Figure 2.12: Edit Resource

Similarly, to delete a resource, you can click on the “Delete” button for the required resource. And the “Delete Resource” modal dialog will be displayed. To complete the delete action, click on the “Delete” button in the modal dialog.

If the operation is successful, a success toaster notification will be displayed.

## Chapter 3: Reports

### Room Bookings

This page is accessible to all users. To access this page, you can click on the Reports > Room Bookings in the Left Menu. And the Reports - Room Bookings page will be displayed (see figure 3.1 below).

You can generate reports on the room bookings and export the results as CSV format. But only users with Administrator or Facility Admin role can view room bookings belong to other users.

The rest of the users will only see their own bookings in the generated reports.

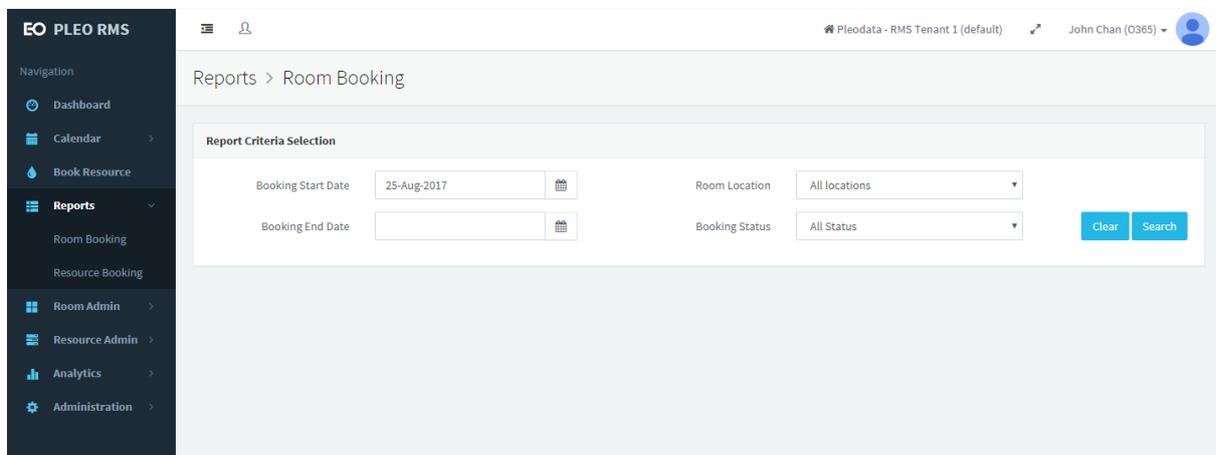


Figure 3.1: Reports - Room Booking Page

You can generate reports with the following filters;

- Booking Start Date
- Booking End Date
- Room Location
- Booking Status

By default, the Booking Start Date is set to the current date, and Room Location and Booking Status default values are "All locations" and "All Status" respectively.

Once you have selected the necessary filter values, you can click on "Search" button to generate the report. The report results are displayed in a table format below the "Report Criteria Selection" box (see figure 3.2 below).

To export the results as a CSV file, you click on the "Export to CSV" button on the top-right corner of the Search Results table.

Reports > Room Booking

**Report Criteria Selection**

Booking Start Date:   Room Location:

Booking End Date:   Booking Status:

---

**Search Results**

S/N	Room	Title	Location	Start	End	Status	Booked By
1	PleoData Office (HQ)	Test Waiting List1	Vertex Tower A	25-Aug-2017 08:00 AM	25-Aug-2017 10:00 AM	Booked	Amos Tan (Google)
2	Room B (Cap 5)	Product Review	Vertex Tower A	25-Aug-2017 10:00 AM	25-Aug-2017 12:00 PM	Booked	Amos Tan (Google)
3	Room C (Cap 20)	Repeated Booking Test	Vertex Tower A	28-Aug-2017 09:00 AM	28-Aug-2017 11:00 AM	Booked	John Chan (0365)
4	Room C (Cap 20)	Repeated Booking Test	Vertex Tower A	29-Aug-2017 09:00 AM	29-Aug-2017 11:00 AM	Pending Approval	John Chan (0365)
5	Room A (Cap 12)	Reserve room for documentation	Vertex Tower A	29-Aug-2017 10:00 AM	29-Aug-2017 11:00 AM	Booked	John Chan (0365)

Showing 1 to 5 of 10 bookings

Figure 3.2: Reports - Room Booking Results

## Resource Bookings

This page behaves in a similar fashion with the Room Booking Report page.

Users can generate reports on the resource bookings and export the results as CSV format. But only users with Administrator or Resource Admin role can view resource bookings belonging to other users. The rest of the users will only see their own bookings in the generated reports.

To access this page, you can click on the Reports > Resource Bookings in the Left Menu. And the Reports - Resource Bookings page will be displayed (see figure 3.3 below).

Figure 3.3: Reports - Resource Booking

You can generate reports with the following filters;

- a. Booking Start Date
- b. Booking End Date
- c. Resource Code
- d. Resource Type
- e. Location (collection/return)
- f. Booking Status

By default, the Booking Start Date is set to the current date, and Resource Type, Location and Booking Status default values are "All Types", "All locations" and "All Status" respectively.

Once you have selected the necessary filter values, you can click on "Search" button to generate the report. The report results are displayed in a table format below the "Report Criteria Selection" box (see figure 3.4 below).

To export the results as a CSV file, you click on the "Export to CSV" button on the top-right corner of the Search Results table.

Reports > Resource Booking

**Report Criteria Selection**

Resource Code	<input type="text"/>	Resource Type	All Types <span style="float: right;">▼</span>
Booking Start Date	25-Aug-2017 <span style="float: right;">📅</span>	Location (collection/return)	All locations <span style="float: right;">▼</span>
Booking End Date	<input type="text"/> <span style="float: right;">📅</span>	Booking Status	All Status <span style="float: right;">▼</span>

[Clear](#) [Search](#)

---

**Search Results** [Export to CSV](#)

S/N	Resource Code	Resource Name	Start Date	End Date	Issued Date	Returned Date	Booking Status	Booked By
1	CP002	Sentosa Pass 1	21-Aug-2017	04-Sep-2017	23-Aug-2017	---	Issued	Hnin Aye Khine
2	TV01	Flat Screen TV 42"	25-Aug-2017	01-Sep-2017	---	---	Reserved	John Chan (0365)
3	AV002	Portable LCD Screen	28-Aug-2017	04-Sep-2017	---	---	Reserved	John Chan (0365)

Showing 1 to 3 of 3 bookings

Figure 3.4: Reports - Resource Booking Results

## Chapter 4: Analytics - Room Bookings

The application provides the following room booking analytics reports. And it is accessible by clicking on the Analytics – Room Booking link in the Left Menu.

These reports are accessible to users with Administrator or Facility Admin role only.

### Yearly Comparison

By default, the Yearly Comparison charts are displayed when users click on the Analytics – Room Booking link.



Figure 4.1: Room Booking Analytics – Yearly Comparison

This page contains 2 stack bar charts that show room utilization for the previous and current year, side-by-side for easy comparison.

Each chart show the room utilization in percentage, categorised by “Confirmed Booking”, “No-show Booking” and “Not Utilized”, for each month in the year.

### KPI Charts

To view the KPI Charts, you can click on the “KPI Charts” button in the Top-Right corner of the main panel.

The following KPIs are displayed for the current year;

- Confirmed Bookings vs Available Hours (percentage)
- Cancelled Bookings vs Total Bookings (percentage)
- No-Show Bookings vs Available Hours (percentage)

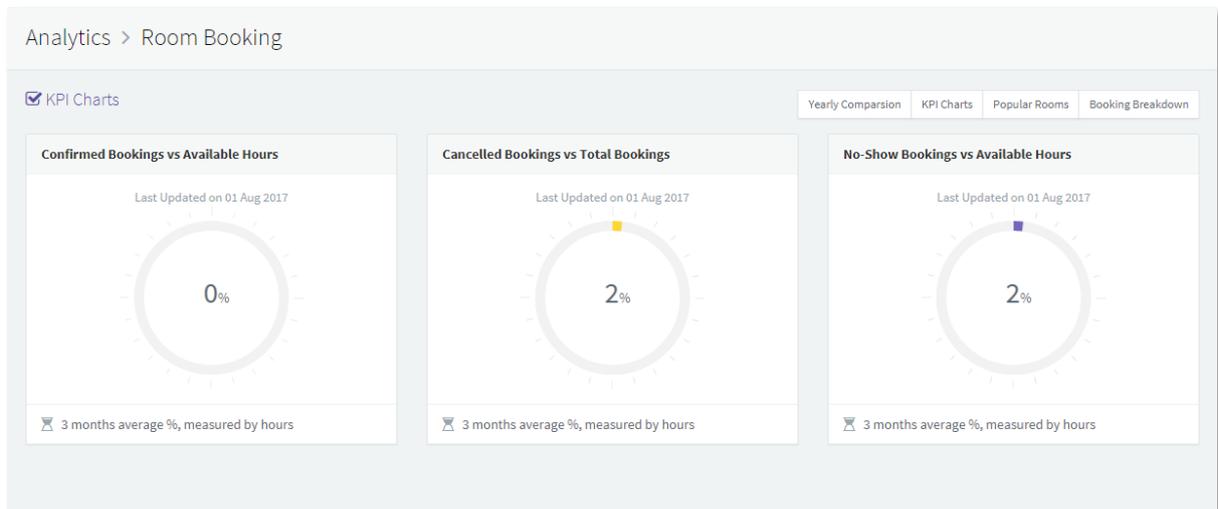


Figure 4.2: Room Booking Analytics – KPI Charts

## Popular Rooms

This page contains 2 bar charts displaying the top 3 most popular rooms, and the top 3 least popular rooms, for the last 3 months.



Figure 4.3: Room Booking Analytics – Popular Rooms

The charts display the bookings measured by hours and grouped by day of the week. This also indicates which week days are the most heavily booked among the popular rooms.

## Booking Breakdown

This page contains two donut charts; display the total bookings over 3 months, grouped by Department and Day of the Week.

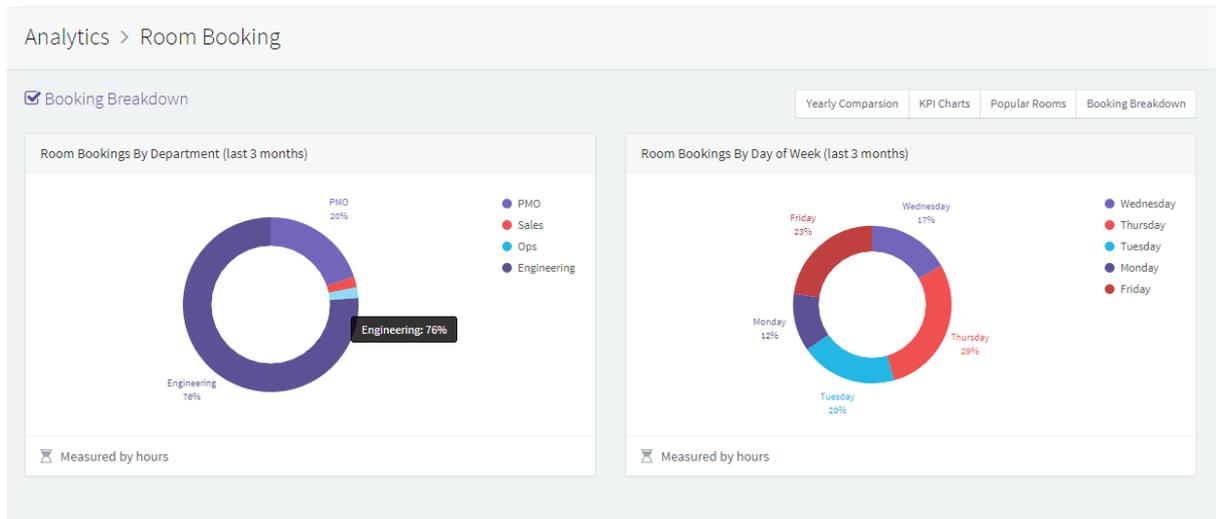


Figure 4.4: Room Booking Analytics – Booking Breakdown

This charts allow us to identify which departments are heavy room users. And which days of the week are booked most frequently.

## Chapter 5: Administration

The pages for the Administration module are accessible to users with Administrator role only.

### Manager Users

To view this page, you can click on the Administrator > Manage Users link in the Left Menu, and the following page is displayed (see figure 5.1 below).

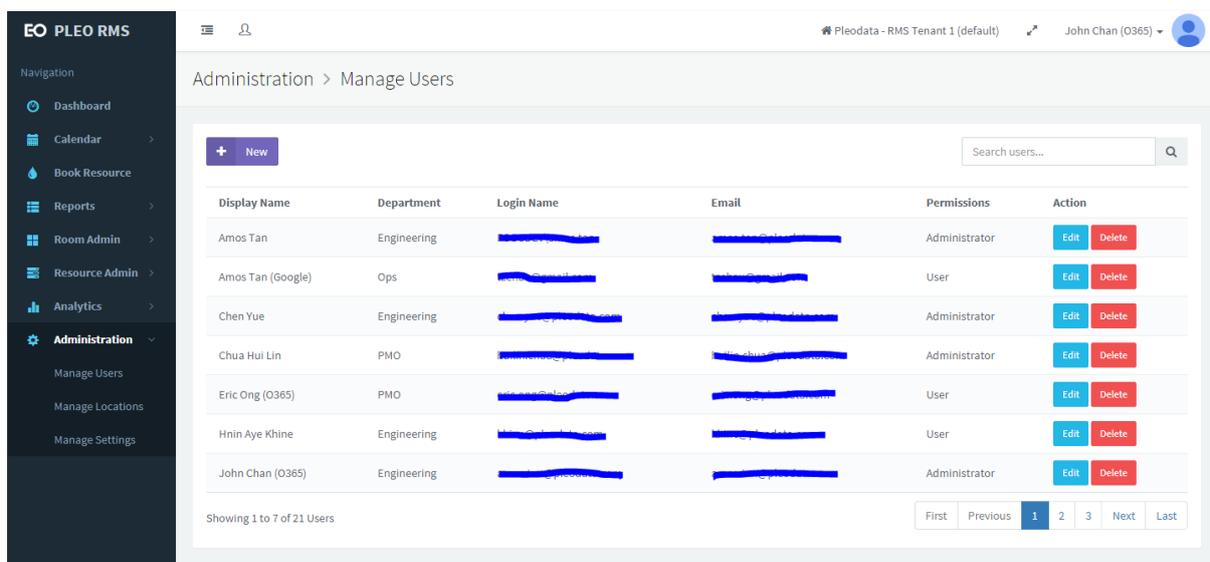


Figure 5.1: Administration – Manage Users

To create a new user account, you can click on the “New” button in the top-left corner of the main panel and the “Create New Account” modal dialog will be displayed (see figure 5.2 below).

Once the necessary information is entered and the role(s) assigned, you can click on the “Save” button to create the new user account.

**Note:**

*The value entered in the Login Name field must belong to a valid Microsoft account. Our application does not store user passwords or perform authentication. Authentication is performed against Azure AD.*

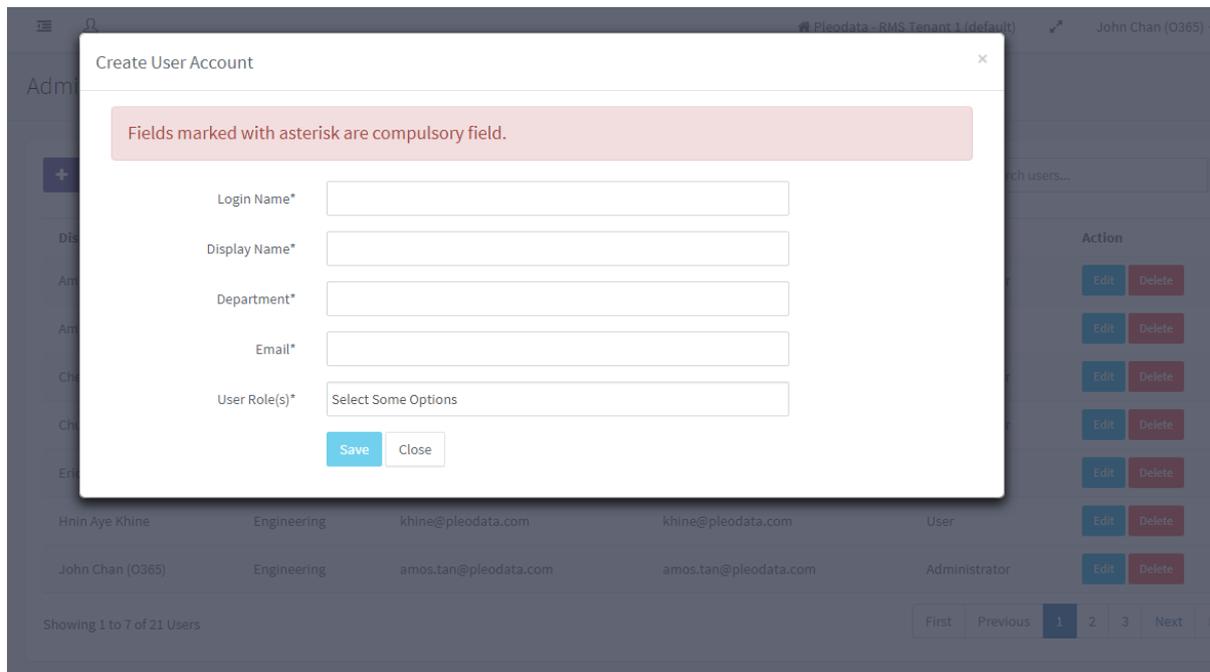


Figure 5.2: Administration – Create User Account

To edit a user account, you can click on the “Edit” button for the required user account. And the “Edit User Account” modal dialog is displayed (see figure 5.3 below).

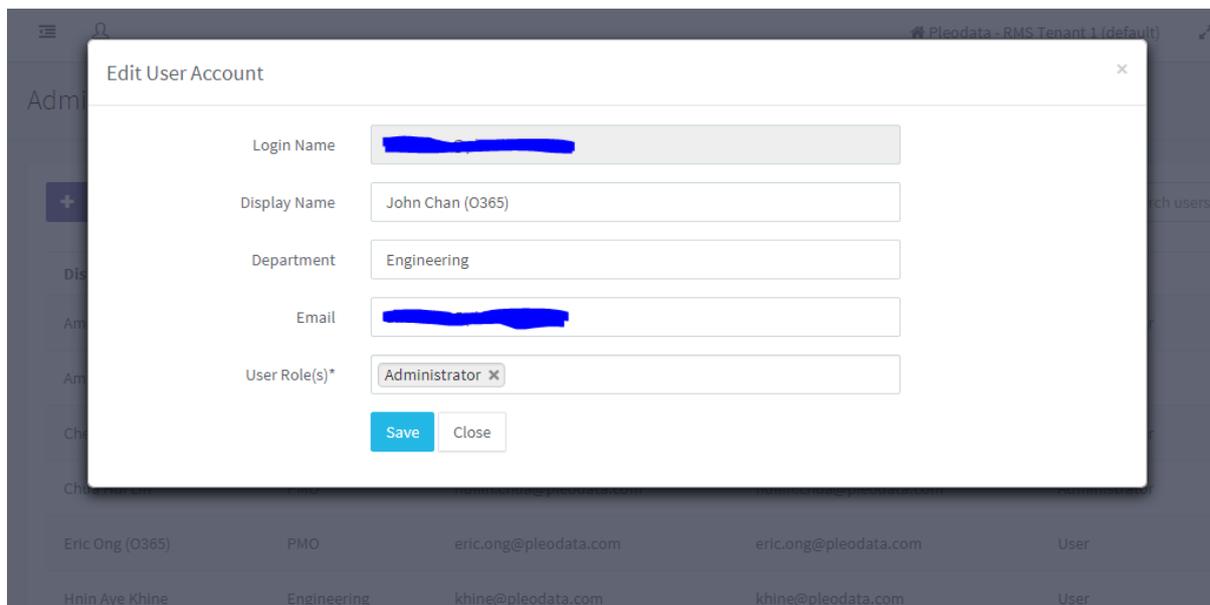


Figure 5.3: Administration – Edit User Account

Similarly, to delete user account, you can click on the “Delete” button besides the required user account. And the “Delete User Account” modal dialog will be displayed. Click on the

“Delete” button in the modal dialog to complete the delete action. If the delete operation is successful, a success toaster notification will be displayed.

## Manage Locations

This page allows administrators to create and edit locations. Location values are master data for the application; used by facility and resource records. The Edit and Delete functions are similar to other modules, and follow the same implementation patterns.

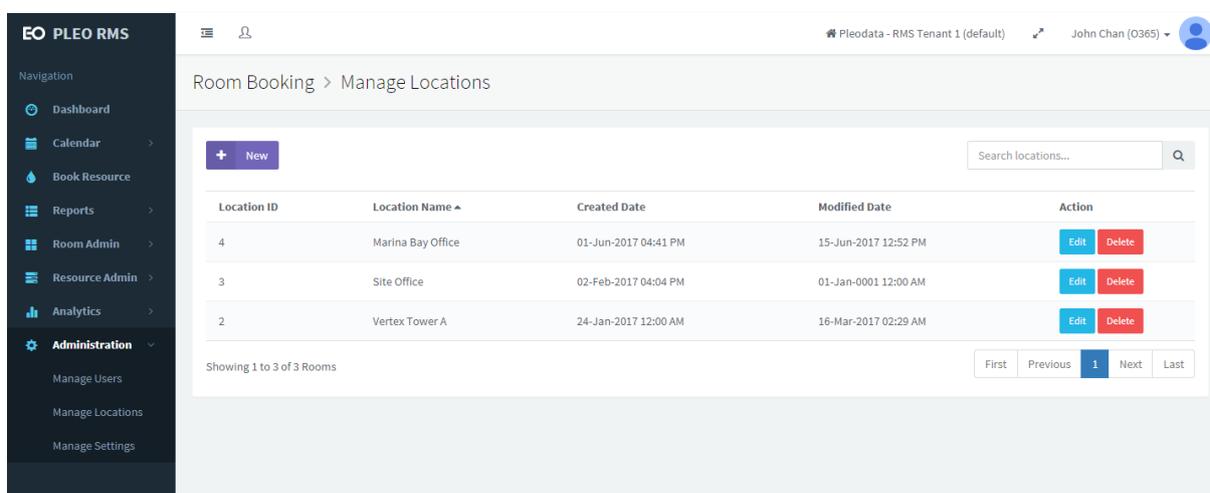


Figure 5.4: Administration – Manage Locations

## Manage Settings

This page allows administrators to edit application settings. These are application wide configuration settings. For example, you can modify the sender email address setting that appears in the email notifications sent by the application, to reflect your organization.

The Edit function is similar to other modules, and follow the same implementation patterns.

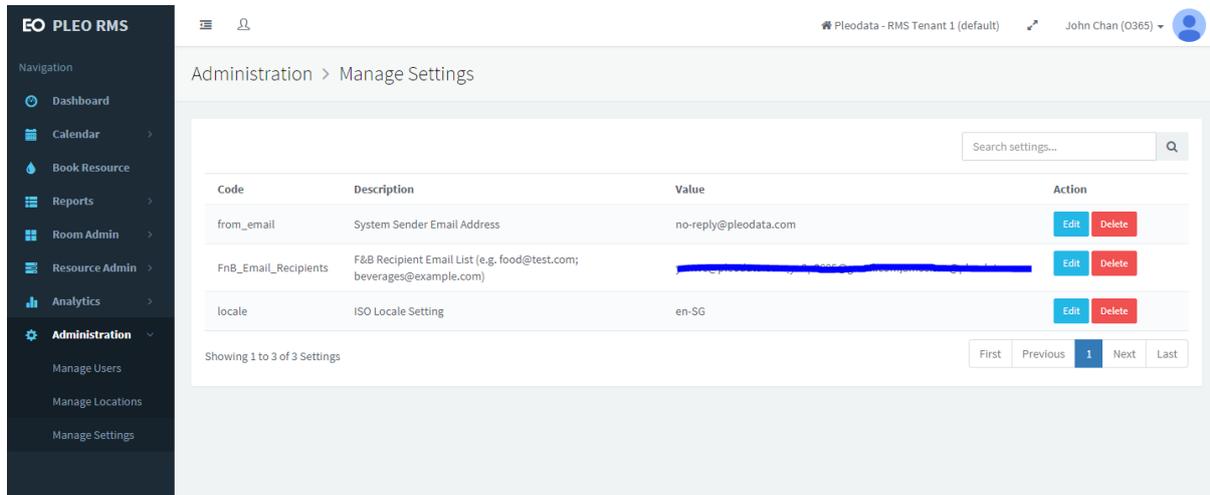


Figure 5.5: Administration – Manage Settings