



DRP

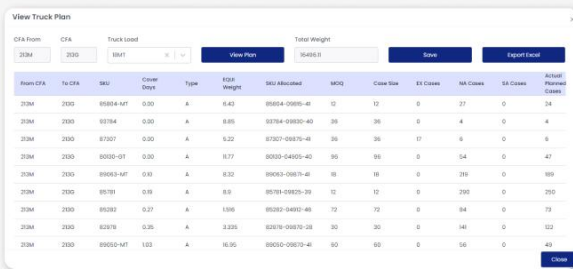
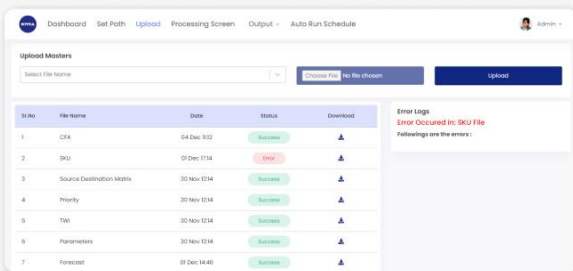
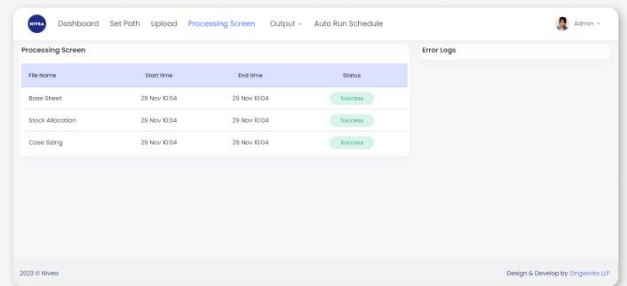
Distribution Resource Planning

Case Study



Client Overview

- World leader in cosmetic industries.
- In India they have 2 manufacturing plants
- Have huge network of CFA, Sub CFA, Distributors across India.
- Have more than **20,000 SKUs**



Current System

- Daily **stock at location, Stock in transit, open orders** and sales of each SKU at each CFA location is available from SAP.
- **Forecast** for each CFA, SKU wise is available from other system on a monthly basis.
- Other data points are available from different sources.
- This compiled data is used for dispatching stock to **various CFA and Distributors**.
- This data also becomes base for **Truck loading**.

Methodology



Business Goals
Value proposition
Prioritisation



Requirements
Scope definition
Wireframing



Technical design
Technology stack
Application architecture
High level technical design



Project Planning
Epics
Stories
Tasks



Execution
Milestones
Sprint planning

This helped the client to identify the shortcomings at early stage of development



Challenges with current system

- There are many sources of huge data and ensuring all are considered at appropriate time by manual methods is very difficult.
- It involves various steps of manually doing tedious calculations in excel sheet. Chances of manual error are high, leading to miscalculations in stock to be sent, triggering either over stocking or stock out position.
- Since process is human dependent, getting the correct data for dispatches takes time. A person or sometime 2 are involved in doing this activity for whole day.
- Also truck load is not correctly calculated, causing underutilization of truck capacity.

SKU Code	Source			Destination	Production center
	Priority 1	Priority 2	Priority 3		
80027	BHAWANDI			Ahmedabad	SPM
80027	BANGALORE	Bhiwandi		BANGALORE	SPM
80027	BHIWANDI	Bhiwandi		BHIWANDI	SPM
80027	Bangalore	Bhiwandi		CHENNAI	SPM
80027	Bangalore	Bhiwandi		COCHIN	SPM
80027	Delhi	Bhiwandi		DEHRADUN	SPM
80027	DELHI	Bhiwandi		DELHI	SPM
80027	Kolkata	Bhiwandi		GUWAHATI	SPM
80027	Bangalore	Bhiwandi		HYDERABAD	SPM
80027	Bhiwandi			INDORE	SPM
80027	Delhi	Bhiwandi		JAI PUR	SPM
80027	Kolkata	Bhiwandi		Kolkata	SPM
80027	Delhi	Bhiwandi		LUCKNOW	SPM

SPGR	SKU Code	Description	SCR	Classification	
89053	89053-09820-41	NSFT PLS_JAR MINI 25ML	SOFT	A	
89053	89053-09821-41	NSFT PLS_JAR MINI 25ML	SOFT	A	
89053	89053-09823-41	NSFT PLS_JAR MINI 25ML	SOFT	A	
89053	89053-09825-41	NSFT PLS_JAR MINI 25ML	SOFT	A	
89054	89054-09827-41	NSFT PLS_JAR 50ML	SOFT	A	
80201-GT	80201-09876-41	NBODY ESS RCH_CRG_MLK 200ML	BODY	A	
85083	85083-04906-48	NLC SBY 4.8G PACK_OF_2	NLC	A	
80789	80789-04901-71	NBC SHR WTR_LLY&OIL 250ML_HDOFAH_FREE	SHOWER	A	
81067	81067-04901-71	NBC SHR LMN&OIL 250ML_HDOFAH_FREE	SHOWER	A	
81779	81779-04901-28	NMEN AIL_IN_3_PW_50ML_RS_25_OFF	NM FACE	CLEANSING	B
88411	88411-04901-41	NBODY ESS_CC_LTN_PNBQ_SOFT_BBD_COMBO_PA	BODY	A	
81067	81067-04909-80	NBC SHR LMN&OIL 250ML_PACK_OF_3	SHOWER	A	
84583	84583-04901-71	NBC SHR FRNG&OIL 125ML_RS_26_OFF	SHOWER	A	

Our Solution

- Made the process **human less**.
- **Automated the process** of collecting various data reports.
- These reports are automatically uploaded to the server, where client defined calculations happen and data is prepared for consumption.
- Various reports like
 - Allocation of stock report based on current stock position, stock in transit, forecast and sell cycle.
 - Generates stock allocation report considering following scenario
 - **Over selling**
 - **Normal selling and**
 - **Under selling**
- Create an update file to be uploaded to SAP for sales order generation.
- Also **keep backup** to know how stock allocation has happened over the period.



Tools & Technologies

- [Azure App Service](#) is fully managed PaaS.
- Frontend built in [React](#) Application.
- Backend with [.NET Core 7](#) a cross-platform.
- [Web API](#) using Entity Framework Core for building [RESTful APIs](#).
- [Azure SQL Database](#) provides high availability.
- [Azure Scaling Options](#) allowing the application to scale horizontally.



Business Impact

- Optimized truck capacity utilization.
- Managed [FIFO](#), scheme-related [SKUs](#), and other factors efficiently.
- Eliminate stock-out situations, leading to [enhanced operational efficiency](#).
- [Automated calculations](#) for in-transit stock, available-to-promise, and capable-to-promise data.
- [Independent processing](#) with near-real-time results, requiring [no human intervention](#) for calculations.

ZingWorks LLP



📍 233 B, Sadashiv Peth,
Pune 411030, India.

✉ info@zingworks.in

🌐 <https://zingworks.in/>

