

# DMart - Complete End To End Inventory Management Solution

In this Case Study we are going to develop a customized “**DMart (Retail)**” application using Force.com platform.

This application is supposed to provide solutions to automate complete buying and selling process of DMart (Retail) store following processes to reduce manual efforts and time.

## **Type of Users:**

1. Merchandise User
2. Sales User
3. Support Team

This application is going to use mainly 3 custom objects for end-to-end automation of DMart (Retail) application. Below are the 3 Objects and its purpose.

## **Objects:**

- 1) **Merchandise:** the purpose of this object is to buy the products/items for the DMart.
- 2) **SellItem:** the purpose of this object is to sell the products/items to customers.
- 3) **Invoice:** the purpose of this object is to raise the Invoice whenever we are selling the products/items to customers.

## **Custom Objects:**

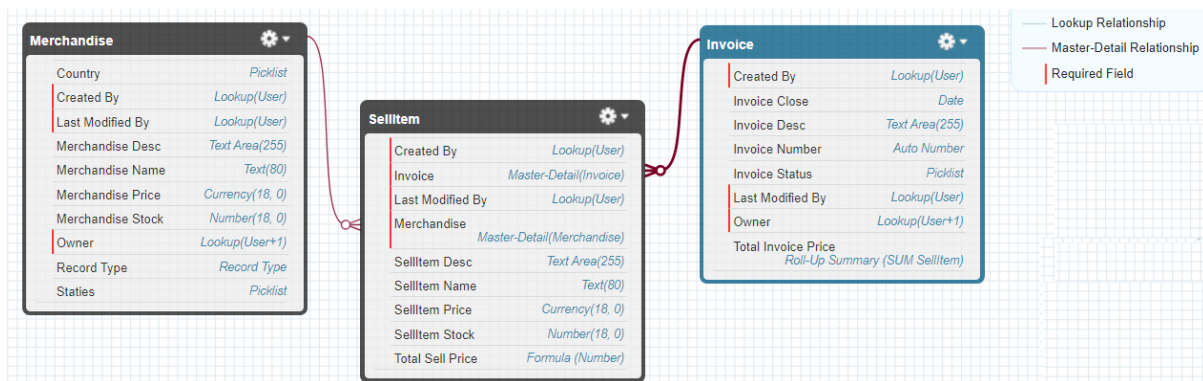
1. Merchandise:
  - a. Merchandise Name - Text
  - b. Merchandise Desc - Text area
  - c. Merchandise Stock - Number
  - d. Merchandise Price – Currency
  - e. Merchandise Country – Picklist (IND/USA)
  - f. Merchandise States – Picklist (UP/KA/NY/NJ)
2. SellItem:
  - a. SellItem Name - Text
  - b. SellItem Desc - Text area
  - c. SellItem Stock - Number
  - d. SellItem Price – Currency
  - e. Total SellItem Price: formula field (SellItem.Stock \* SellItem.Price)
3. Invoice:
  - a. Invoice Number – Auto Number
  - b. Invoice Desc - Text area
  - c. Invoice Status - Picklist (Open/Closed/Finalized/Bargain/Void)
  - d. Invoice Close Date – Date
  - e. Invoice Total Price – Roll-up Summary (Sum of “Total SellItem Price” from SellItem Object)

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**Note:** Here we have to launch Merchandise and Invoice Object as a TAB whereas SellItem Object should not as it's a dependent Object of Merchandise as well as Invoice too as it will act as a junction object you will find it into related list to Merchandise and Invoice.

Relationships among Objects as below:

## ERD:



## Use Cases:

1. At the time of buying the product from Merchandise object, Merchandise States should be dependent to Merchandise Country when User is selecting Merchandise Country as IND then UP/KA States should be populated else if Country is USA, then States should be NY/NJ.
2. While Creating Merchandise record, please make sure we have to implement 2 different Record Types 1<sup>st</sup> for Domestic User and 2<sup>nd</sup> one is for international User, Please make sure Domestic user should not have access on Country and State picklist fields i.e., Domestic user only needs to work on without country record type whereas international user can have access on both the Record Types i.e., with country and without country.
3. Selling Stock should not be greater than Merchandise Stock (What we have into our stock) using Validation.
4. Please make sure your selling stock should also be get reduced from Merchandise Stock whenever Sales user selling the items to customers from SellItem Object.
5. If the selling Stock should be greater than 1000 then there should be an email notification to CEO.
6. During the closing of the invoice with Invoice Status as "Closed", please make sure invoice close date should not be blank.

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7. Please make sure Invoice Object will show Invoice Total Price which is aggregate to Total SellItem price on SellItem Object.
8. Whenever we are Buying the stock more than 10000, it should go to our manager for getting approved.
9. All Changes on Merchandise Object should be tracked.
10. Only Merchandise User can create/edit the record into Merchandise Object.
11. Only Sales User can create/update the records into SellItem Object
12. Only Support user can delete the record from the Merchandise/SellItem Object.

### **Trigger**

13. Whenever User is deleting the record(s) from the Merchandise Object then deleted record(s) needs to be inserted into Merchandise Archive object for future reference using triggers.
  - a. Fields to be inserted Merchandise Archive Name, and Merchandise Archive Description, Merchandise Archive Stock and Merchandise Archive Price into Merchandise Archive Object from Merchandise Object.

### **Data Loader**

14. Perform all operations on Merchandise object: -
  - a. Export
  - b. Insert
  - c. Update
  - d. Delete
  - e. Hard delete
  - f. Upsert

### **Apex Batch & Schedulable:**

15. Create a daily job which will Void the Invoice Status if they are in Open Status for last 30 days.

### **Web Services**

16. Create a Webservices where you have to create a new record for Merchandise's Object (Merchandise Name, Merchandise Description, Merchandise Stock and Merchandise Price) from third party application using Workbench

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## **LWC (Lightning Web Component)**

17. Create a LWC Component where you have to search Merchandise details either by Name or Stock and then populate searched result

**a. Searched result must include following fields:**

Merchandise Name, Merchandise Description, Merchandise Stock and Merchandise Price

## **Reports/ Dashboard:**

1. Sales reports compares with Current year vs Pervious year
2. Report to show how many invoices were closed in last 1-month, quarter or year.
3. Dashboard to show visual representation of above reports