

ADipIT01–SOFTWARE ENGINEERING

TOPIC: DEPARTMENTAL STORE MANAGEMENT SYSTEM

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# 1. Requirement Elicitation

## 1.1 Fact Finding Techniques

### 1.1.1 Research

After researching about the Departmental Store, we came to know about DSMS (Departmental Store Management System). This is a system that is used throughout the retail industry. This computerized system allows business owners to track sales, cash flow, food inventory and can help simplify your bookkeeping enormously. Some of the features of the DSMS are following:

* Quick and Accurate Sales:

Sales play the vital role for the successful business of any Departmental Store. A DSM system ensure that everything runs smoothly on every transaction which results quick and accurate sales.

* Inventory Control:

Controlling the inventory in good manner is very important to run departmental store efficiently. Since, a DSM system keeps a detailed and accurate inventory count of each items, it is much easier and efficient to maintain store.

* Customer Relationship Management (CRM):

Customer profile includes demographics, preferences and purchase history. Due to which it will be much easier to target market.

* Reports and Analysis:

A DSMS will allow you to preview, search and print daily sales reports and journals by register, batch, and receipt number which makes easier to write report and allows for positive analysis of the market.

### 1.1.2 Background reading

In background reading we went through the different reports and journals created by that departmental store, job descriptions, their policy manuals and documents related to their store. According to their reports we came to know about the major sales of the market. In today’s market home appliances, clothing, electronic appliances, gadgets, etc. are the major sales. To manage those products in efficient manner Departmental Store Management System can be introduced.

Features of DMS System:

* Log in Admin/Sales person/customer
* Add Salesperson
* Delete Salesperson
* Buy Product
* Pay Bill
* Sales register
* Sales summary
* Discount for Cash
* Customer Details
* Sales Details
* Payment Details
* Print sales reports
* Delivery Receipt
* Products Inventory
* Print Products Inventory
* Add Product
* Search Products
* Edit Product
* Update Product
* Delete Product
* Generate Barcode
* Print Barcode Labels
* Barcode Scanner
* Refunds Products
* Refunds and sales Transactions
* Refunds and sales Transactions Reports
* Daily/Weekly/Monthly/ Yearly Reports
* Print Daily/Weekly/Monthly/ Yearly Reports(RAJIB, 2017)

## 1.2 Requirement Analysis

Based upon the research and facts collected we categorized the needs of the system as followed

### 1.2.1 Functional requirements

The functional requirements define the components of the system. It is concerned with calculation, manipulation related task.

The basic functional requirements required for the DSMS are as listed below:

* The software automatically validates the login user
* The System should allow users to record customers sales
* Only the manager should be able to access all departments
* The software system should be integrated with banking API
* The system should include calculator
* The system should be integrated with databases.
* The owner should be able to add the staffs account

### 1.2.2 Non-functional requirements

The non-functional requirements define the properties of the system. The non-functional requirements of the system are

* The staffs must use assigned username with a new password for personal account
* The staffs are not allowed to change their own salary
* The system must be able to handle a lot of data without affecting its overall performance
* The system should be able to update
* The information regarding the restricted sections should be handled properly.
* The system should be able to adapt changes quickly

Functional Decomposition Diagram

DSMS

Owner Manager Products staffs

Revenue check system maintenance Details Manage Products

Staff Check Staff Registration

Sales Record Staff Information

Prepare revenue report

## 1.3 Requirement Validation

After going through different validation techniques such as validity check consistency checks, completeness checks etc, No errors raised.

# 2.Requirement Engineering (Resulting in SRS Document)

# **SRS Table:**

**UM** - User Management  
**SM** – Stock Management  
**PM** – Payment Management  
**RM** – Report Management

**F**- Functional Requirement

**NF**- Non-functional Requirement

**UR**- Usability Requirement

|  |  |  |
| --- | --- | --- |
| Requirement ID | Requirement Specification | Moscow |
| UM-F-1 | User should be able to login into dashboard through login portal. | Must have |
| UM-NF-1.1 | Password should contain alpha numeric,symbols. | Must have |
| UM-UR-1.2 | Show validation message for login after login attempt on fail. | Must have |
| UM-UR-1.3 | User Should be Provided with the opinion forthe password visible. | May have |
| UM-F-2.1 | Manager should be able modify and update the user. | Must have |
| UM-NF-2.2 | User should only able to read information. | Must have |
| SM-F-1.1 | System should be able to display all the products that can be configured by their name, Id or category. | Should have |
| SM-F-1.2 | System should be able to enable user to enter the search text on the screen with multiple selection options. | Must have |
| SM-F-1.3 | System should be able to list all items that are expired or out of stock. | Should have |
| SM-NF-1.4 | System should load the list in less than 2 seconds. | Must have |
| SM-UR-1.2 | System should display detailed product categorization to the user when hovering over it. | Must have |
| SM-UR-1.3 | System should be able to suggest similar items. | Should have. |
| SM-NF-2.1 | System should record the staff who created and updated the items. | Should have |
| PM-F-1 | System should allow staff to create and print bills once it is confirmed. | Must have |
| PM-NF-1.1 | The number of items should be deducted after the sales of that item. | Must have |
| PM-NF-1.2 | System should calculate the grand total after reducing discount or adding VAT if needed. | Must have |
| PM-F-2 | System shall allow user to select the payment method. | Must have |
| PM-UR-2.2 | System shall provide specific guidelines to a user for using the e-payment methods. | Must have |
| RM-F-1 | Manager should be able to check and create the report. | Must have |
| RM-UR-1.1 | Reports should be separated by their date. | Must have |
| RM-NF-1.2 | Reports should able to display most sold items in each category. | Should have |

# 3.System Modeling

## 3.1 Context modeling(Use Case Diagram)

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