A

MINI PROJECT REPORT

ON

"Super Mart Software (SMS)"

OF
MASTER OF COMPUTER APPLICATIONS (MCA)

SUBMITTED BY
(Somani Suraj Manoj)

UNDER THE GUIDANCE OF
(Prof. Gayatri Asalkar)

TO

SAVITRIBAI PHULE PUNE UNIVERSITY

DR. D.Y. PATIL CENTRE FOR MANAGEMENT & RESEARCH,

CHIKHALI, PUNE-411062

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<u>CERTIFICATE</u>

This is to certify that Mr. **SURAJ MANOJ SOMANI** is student of MCA 1st Year full time degree course at our Institute. His/ Her MINI PROJECT WORKTITLED **"SUPER MART SOFTWARE"** submitted as part of the curriculumfor the award of Master of Computer Application degree of Savitribai Phule Pune University, Pune. This is an original work done by him. This work is not submitted earlier in part or full to this or any other institute / University for anydegree / diploma.

Project Guide	**HOD**	**Director**
DYPCMR	**DYPCMR**	**DYPCMR**
(Prof. Gayatri Asalkar)	(Prof. Minal Pawar)	(Dr. Sunil Dhanwade)

Place: Chikhali, pune

Date: 18th march 2023

ACKNOWLEDGEMENT

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Date: 18th march 2023   Signature

Place: Chikhali, pune   **Suraj Somani**

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INTRODUCTION

Super Mart Software (SMS) is a standalone system that helps the owners of Super Mart to manage the data ands information of their super mart. It provides the solution for replacing the manual work done to manage the daily records of super marts. A full-featured application is needed for mart to manage all the stored data and information systematically and efficiently. SMS application is developed for mini marts to manage inventory, staff, supplier and finance records. In the SMS application, monthly profit can be calculated and therefore monthly or yearly sales analysis can be performed.

1.1.   Existing System & Need for System: -

Unfortunately, don't have any kind of existing system. Managing the information is actually not an easy task because of course it's Information. The data of which is being available in a very big quantity is being maintained by humans (paper work / documents) only they have to jot down all the data, information, records, etc. in to the documents.

This process not only take time but also this process is very hard and difficult to maintain because one calculation or mistake into the records leads up to a very huge loss. Not only this, if any single document is lost or damage, then also there will be big problem for the inventory.

1.2. <u>Scope of Work: -</u>

Scope of supermarket tends to the future of the supermarket business. As it follows a particular model, supermarkets should not mix up with the norms of the traditional market. All the component entities that are being mentioned must be taken care of while successfully managing the supermarket business:

- The retail store chain.
- Transportation systems.
- Number of retail stores in a particular area.
- Product suppliers on a regional basis.

1.3. <u>Operating Environment: -</u>

- ### <u>Hardware Requirements: -</u>

    - Processor   →   Intel Core i3.

    - Hard Disk   →   512 GB.

    - RAM   →   04 GB.

- ### <u>Software Requirements: -</u>

    - Operating System   →   Windows 7 or later, macOS, Linux.

    - Frontend   →   Java (GUI with Swing).

    - Backend   →   MySQL.

    - Tools / IDE's   →   Apache NetBeans.

1.4.   Detailed Description of Technology Used: -

Swing is a Java Foundation Classes [JFC] library and an extension of the Abstract Window Toolkit [AWT]. Swing offers much-improved functionality over AWT, new components, expanded components features, and excellent event handling with drag-and-drop support.

Swing has about four times the number of User Interface [UI] components as AWT and is part of the standard Java distribution. By today's application GUI requirements, AWT is a limited implementation, not quite capable of providing the components required for developing complex GUIs required in modern commercial applications.

Many programmers think that JFC and Swing are one and the same thing, but that is not so.

JFC contains Swing [A UI component package] and quite a number of other items:

- Cut and paste: Clipboard support.
- Accessibility features: Aimed at developing GUIs for users with disabilities.
- The Desktop Colors Features Has been Firstly introduced in Java 1.1.
- Java 2D: it has Improved colors, images, and also texts support.

<u>Features Of Swing Class: -</u>

- Pluggable look and feel.
- Uses MVC architecture.
- Lightweight Components.
- Platform Independent.
- Advanced features such as JTable, JTabbedPane, JScollPane, etc.
- Pluggable Look and Feel.
- Lightweight Components.
- Highly customizable.
- Rich controls

PROPOSED SYSTEM

2.1. Proposed System: -

So far, thus we have proposed such a system in which one needs to enter all the details into the computer and then all the collection of details and inventory will get saved automatically. In fact, the calculations do not require any manual work. You just need to have enter the amount and the quantity, and as per the program everything will get calculated in just a single minute and will automatically get saved into the database. In case, if one copy of the data is being lost, then due to this highly programmed software, the backup of all the data is being available into the database from where, the authorized person can get access to the lost data once again.

2.2.   <u>Objectives of System: -</u>

                    The Super Mart Software is a highly programmed software whose task is to maintain and keep track of all the records of the goods that are available in stock or is not available too in an inventory management system.
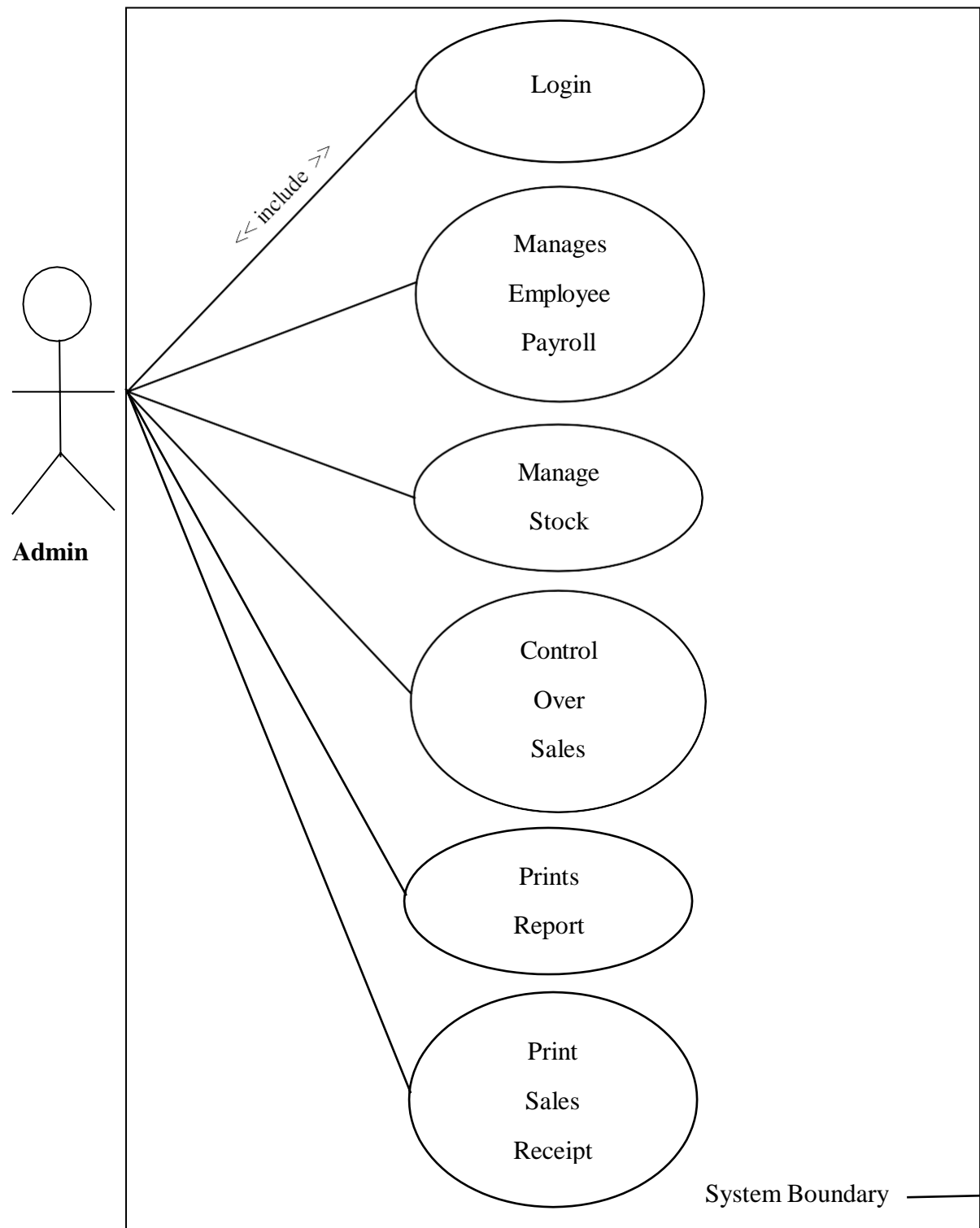
                    As we all know, Inventory is basically a place where all the retail things and various goods and items are stored and maintained and is sell to the buyers. When a good is sell, all the details like to which retailer the good is being selling or which item and how many in quantity and at what prices are being it is selling. All the details is being managed in the Super Mart Software.

2.3.   <u>User Requirements: -</u>

- Processor: - Intel Core i3 or above.

- RAM: - 4 GB.

- Operating System: - Windows 7 or later, macOS, Linux.

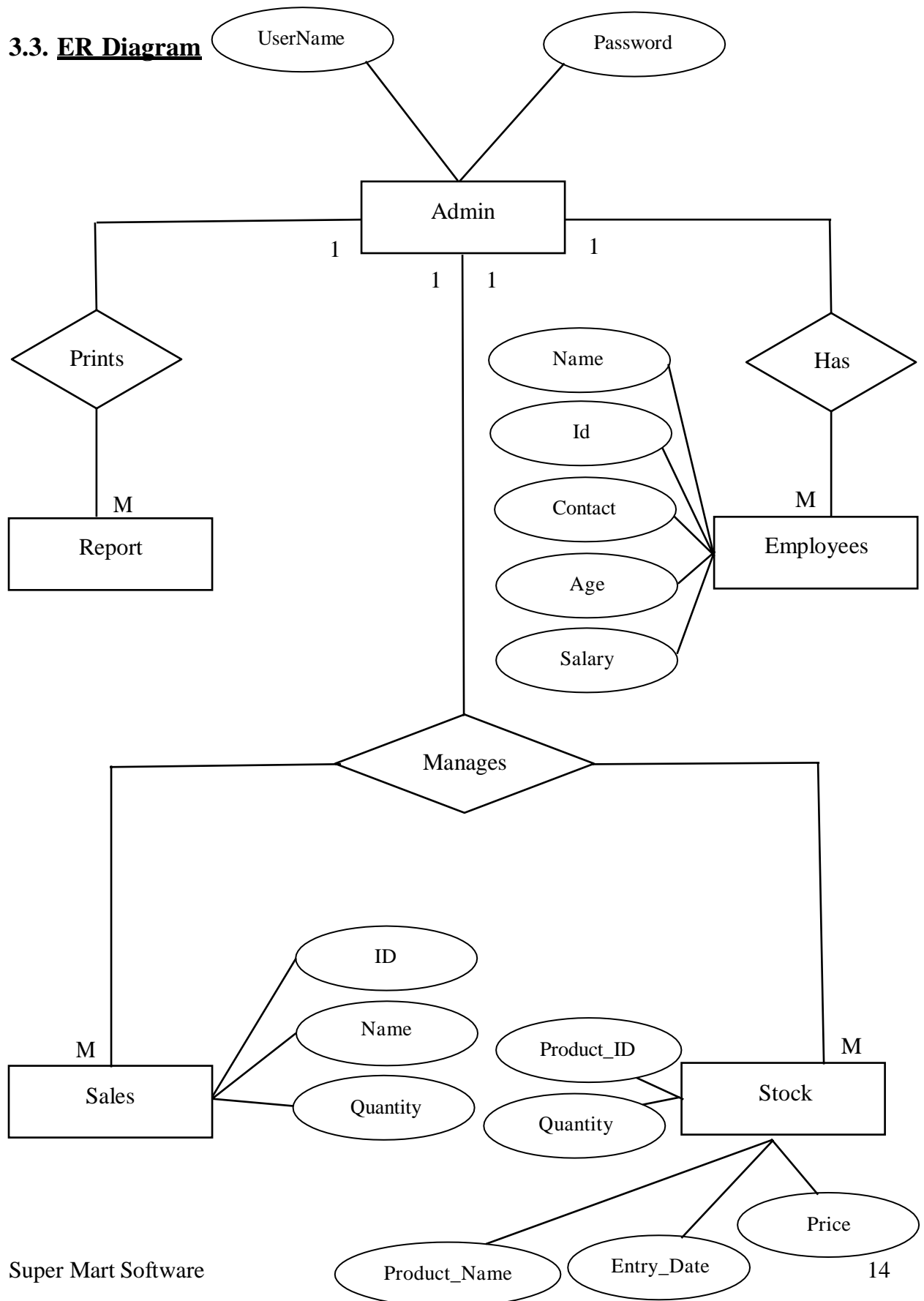- User must have knowledge about How to use Computer or Laptop.
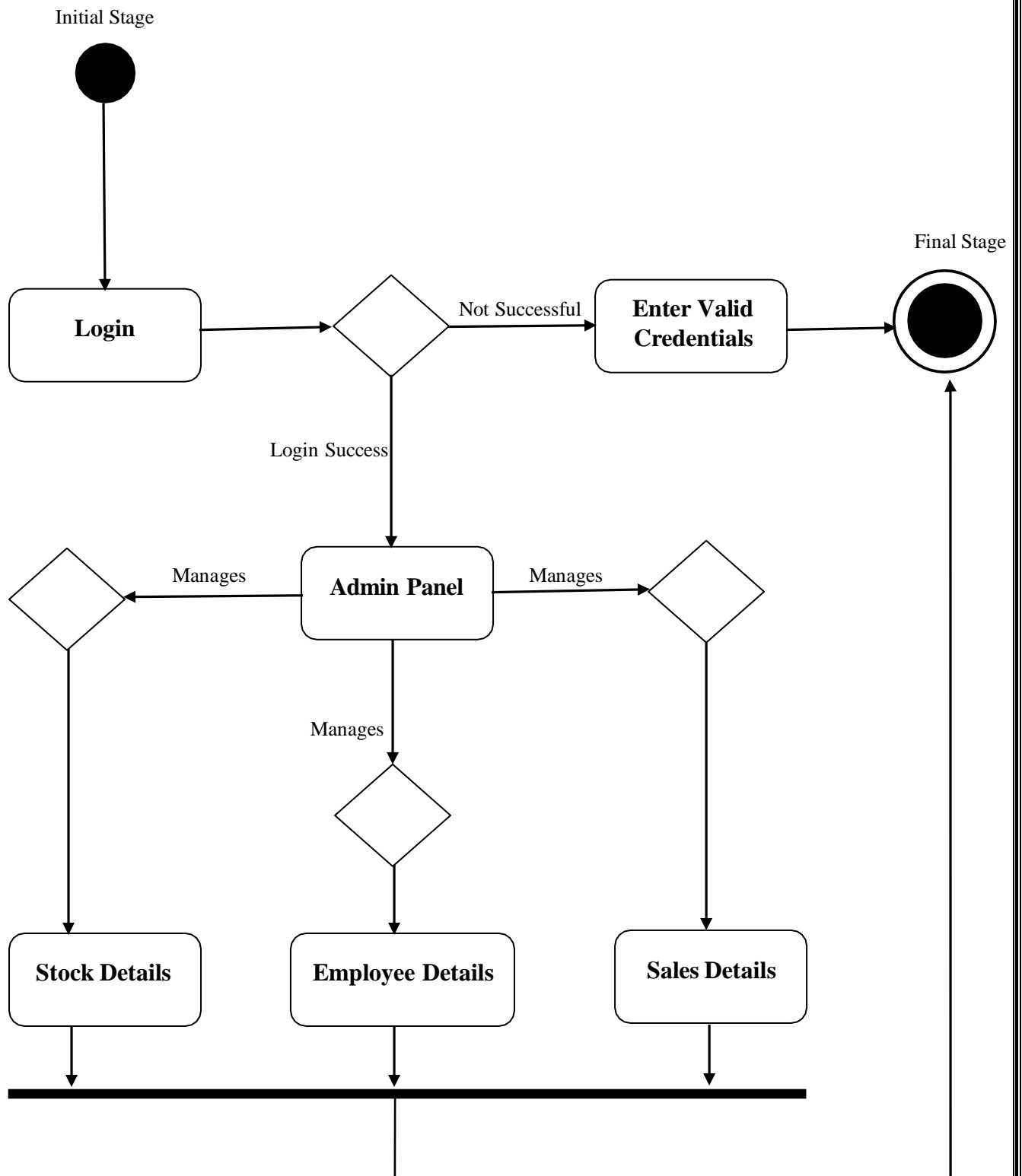
SYSTEM ANALYSIS
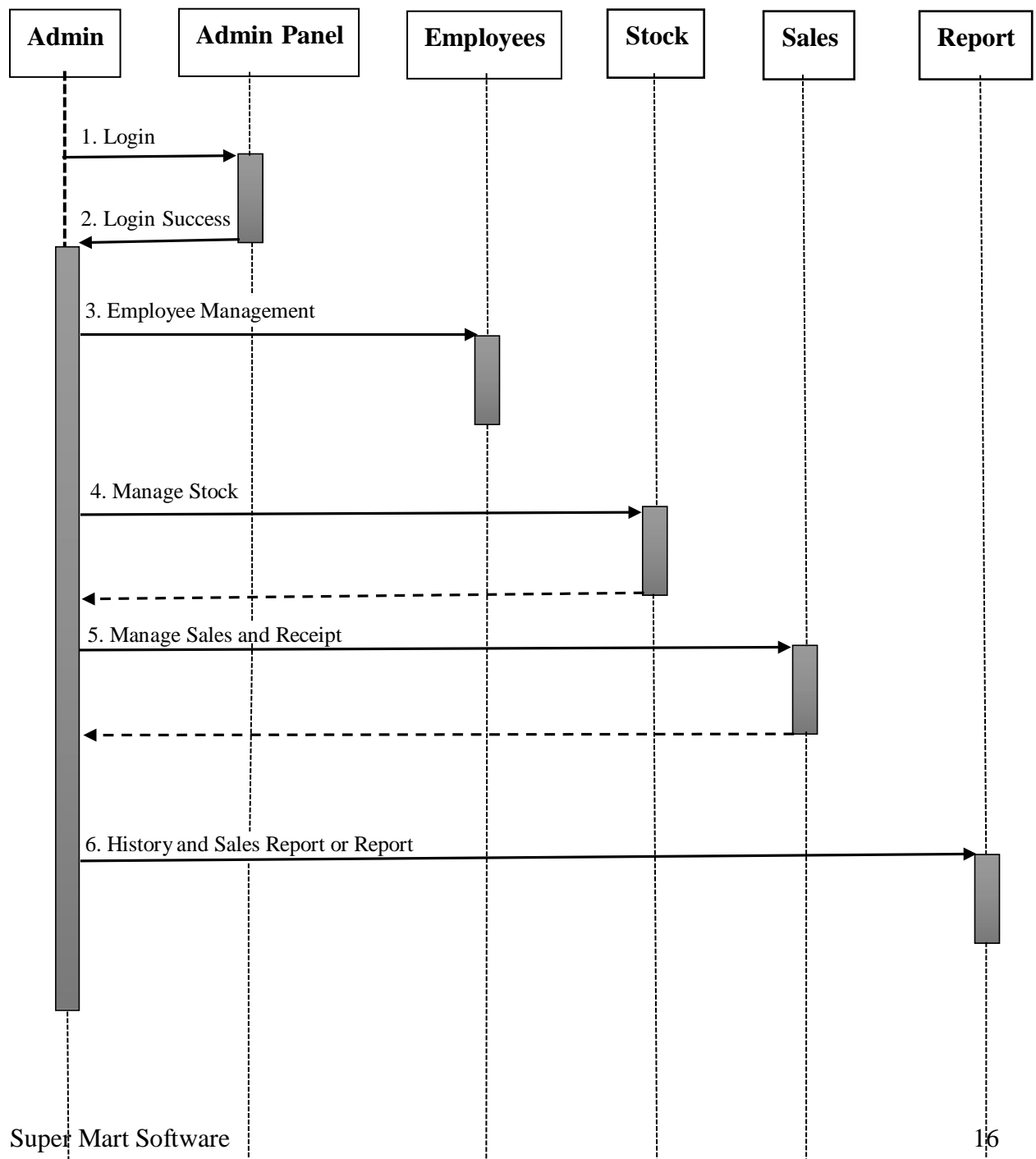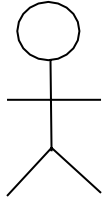
3.1. Use Case Diagram

3.2. **Class Diagram**

Admin

+ user_name : String

+ password : String

+Login()

Stock

- product_ID : Integer

- Product_name : String

- Entry_date : date

+ available_stock()

Manages

Employees

- ID : Integer

- name : String

- contact : Integer

- gender : String

- age : Integer

+ employee_details()

Prints

Sales

- ID : Integer

- name : String

- quantity : Integer

+ sales_receipt()

Manages

Report

- product_ID : Integer

- Product_name : String

- Entry_date : date

+ report()

3.3. **ER Diagram**

3.4. Activity Diagram

Initial Stage

Final Stage

Login → ◇ — Not Successful → **Enter Valid Credentials** →

Login Success

◇ ← Manages — **Admin Panel** — Manages → ◇

Manages

◇

Stock Details   **Employee Details**   **Sales Details**

3.5. Sequence Diagram

1. Login
2. Login Success
3. Employee Management
4. Manage Stock
5. Manage Sales and Receipt
6. History and Sales Report or Report

SYSTEM DESIGN

4.1. User Interface Design (Screens, Reports, etc.)

1. Splash Screen

2. <u>Login Page</u>
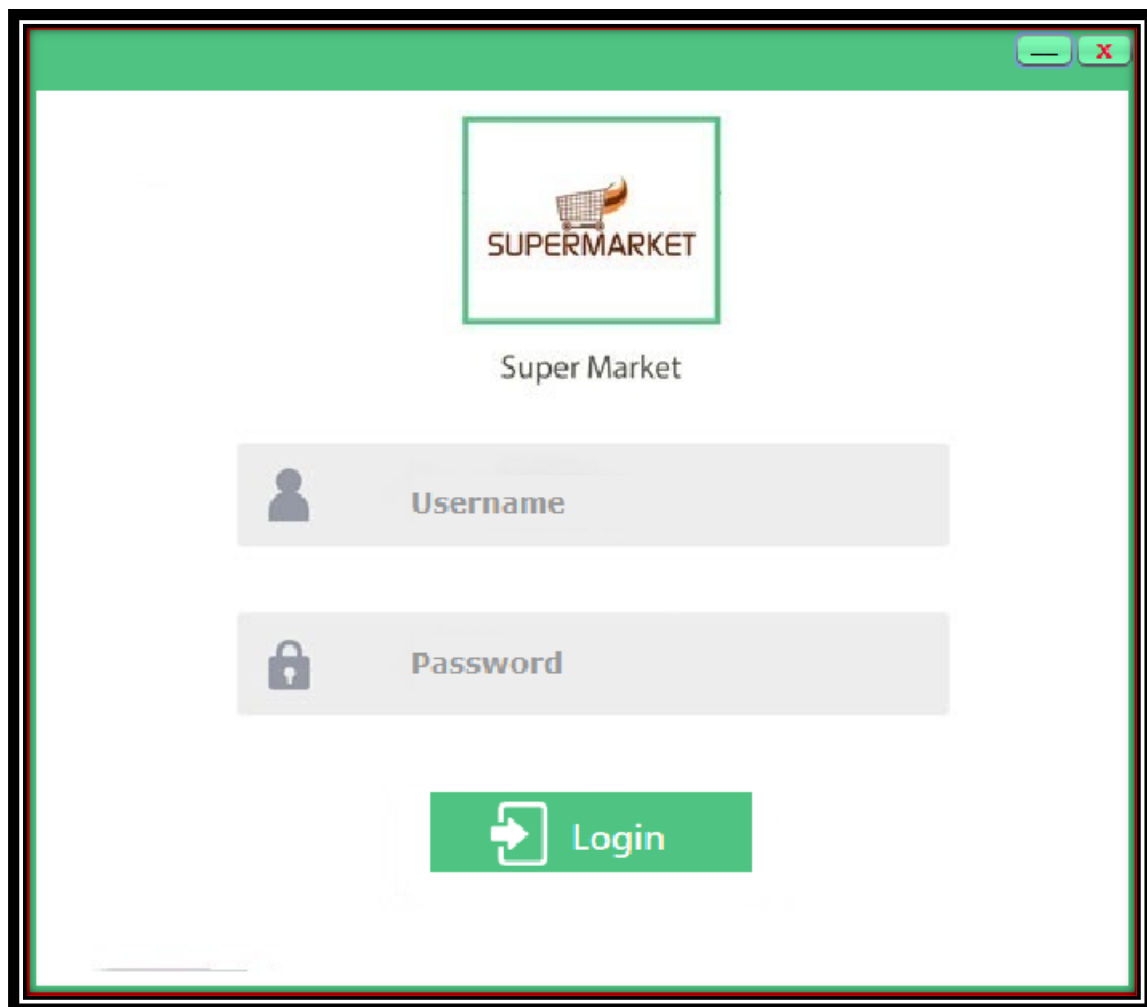
3. Admin Panel
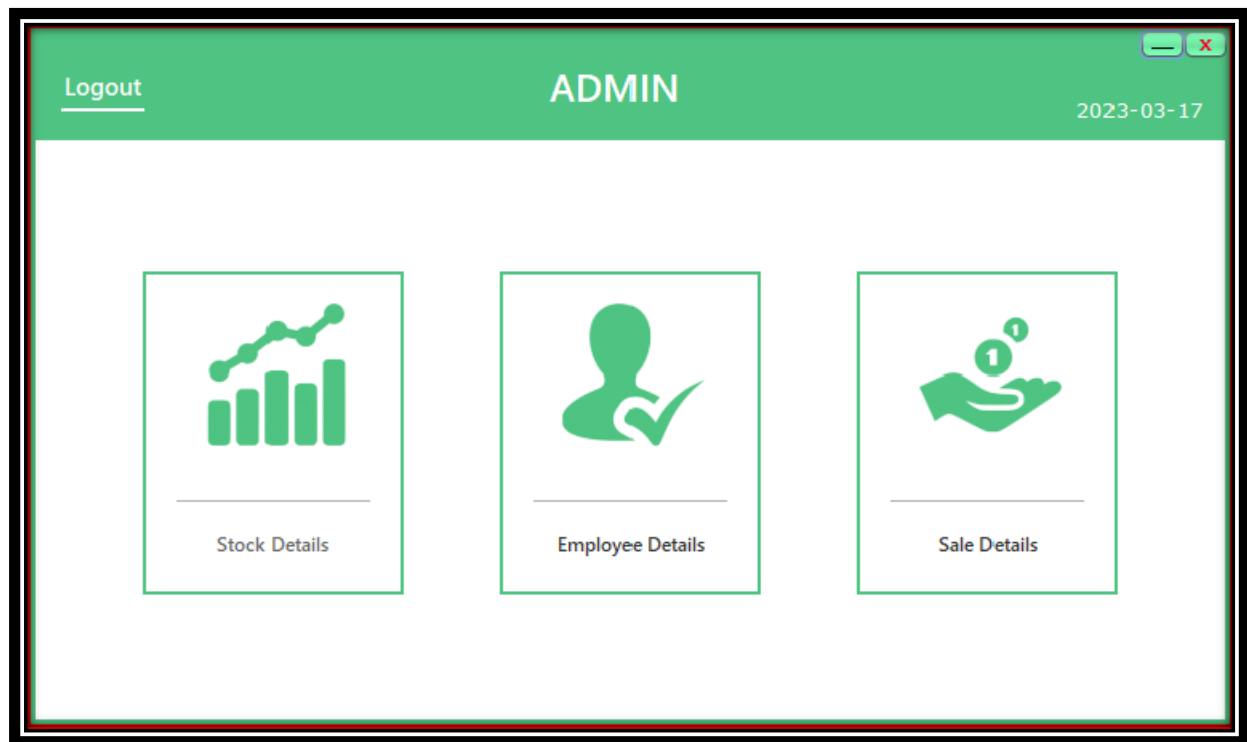
4. Stock Menu
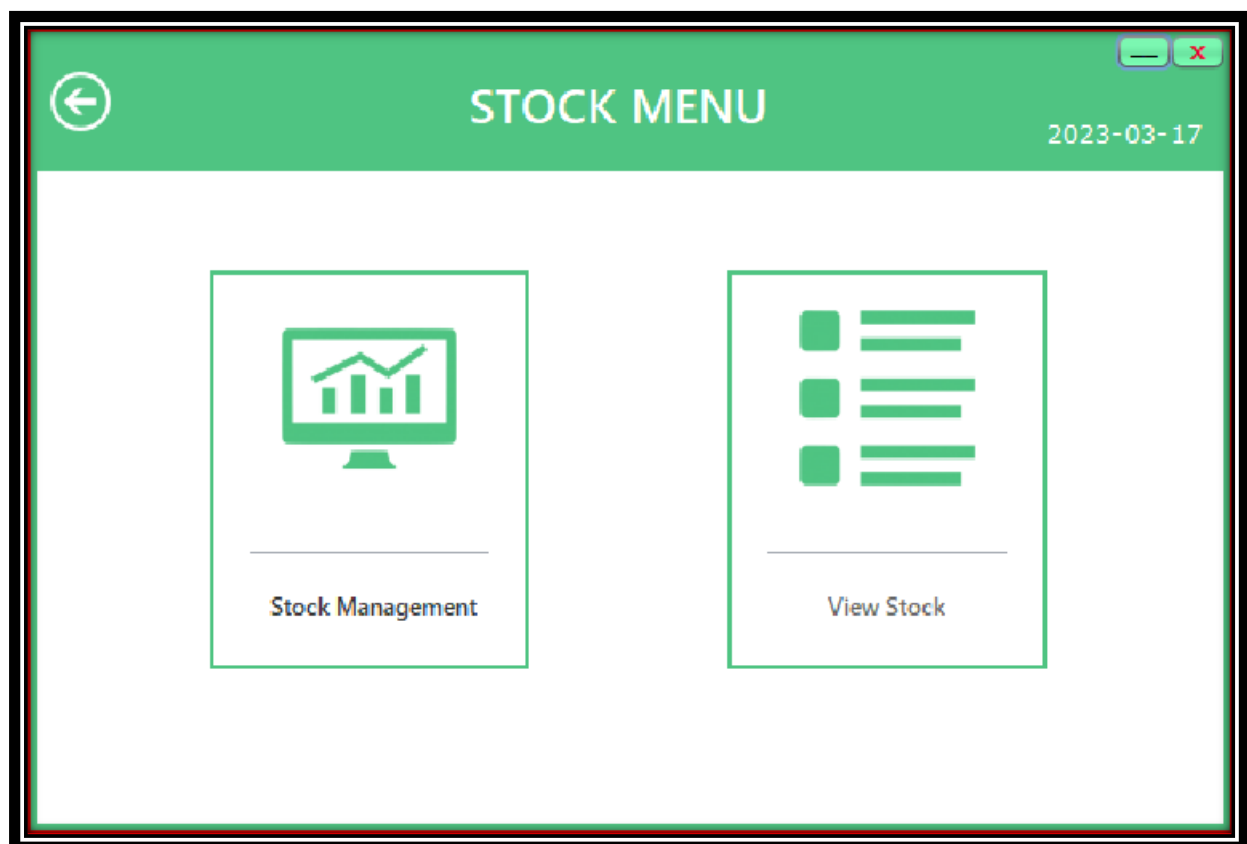
5. Stock Management

6. Stock Information

Stock Information

2023-03-17

View All Stock Details

Search ID [   ]

🖨 Print Stock

Product_ID	Product_Name	Quantity	Entry_Date	Price
11	Tooth Past	963	2017-05-19	50
12	Footware	1000	2017-05-31	1200
13	Soap	1000	2017-05-07	45
14	Android	909	2017-05-20	1500
15	Suits	1242	2017-05-24	8000
16	Glasses	867	2017-05-06	240
17	Balm	992	2017-05-03	55
18	Bat	1000	2017-01-20	1050
19	Cap	100	2017-05-22	20

7. __Employee Management__

8. Employee Details

9. Salary Status

10. <u>Sales Menu</u>

11. Point Of Sale (POS)

Point Of Sale (POS)

2023-03-17

Add To Cart

ID ▾

Quantity

🛒 Add

Update & Remove Cart

Product ID

Product Name

Quantity

Entry Date

Price

🔄 Clear   🗑 Delete   🔄 Update

Customer Payment

Sub Total   10100

Recived Cash   10100

Change Due   0

10100

<-   C

1 2 3   +

4 5 6

7 8 9   Ent

0 .

📄 Receipt

Product_ID	Product_Name	Quantity	Entry_Date	Price
15	Suits	1	2017-05-24	8000
18	Bat	2	2017-01-20	2100

12. Sales Receipt

13. Sales History

Sales History

2023-03-17

View All Sales History

Search ID 15

Print History

Product_ID	Product_Name	Quantity	Entry_Date	Price
15	Suits	13	2017-05-24	104000
15	Suits	45	2017-05-24	360000
15	Suits	2	2017-05-24	16000
15	Suits	2	2017-05-24	16000
15	Suits	2	2017-05-24	16000
15	Suits	1	2017-05-24	8000

4.2. Data Dictionary

No	Data Element	Description	Data Type	Size	List of Specific	Data Store	Remarks
1	Username	Admin Name	Text	20	It store admin name	Admin Muster	It contains admin name
2	Password	Admin Password	Text	20	It store admin Password	Admin Muster	It contains admin password
3	Id	Employee Id	Number	5	It store employee number	Employee Muster	It contains employee Id
4	Name	Employee Name	Text	20	It store employee name	Employee Muster	It contains employee name
5	Contact	Employee contact	Number	10	It store employee contact	Employee Muster	It contain employee contact
6	Age	Employee Age	Number	3	It store employee age	Employee Muster	It contain employee age
7	Gender	Employee Gender	Text	6	It store employee gender	Employee Muster	It contain employee gender
8	Salary	Employee Salary	Number	6	It store employee salary	Employee Muster	It contain employee salary
9	Product_id	Product Id	Number	10	It store product Id	Product Muster	It contain product id
10	Product_ Name	Product Name	Text	20	It store product name	Product Muster	It contain product name
11	Quantity	Product Quantity	Number	5	It store product quantity	Product Muster	It contain product quantity

12	Entry_Date	Product Entry Date	Date	-	Its store product date	Product Muster	It contain product date
13	Price	Product Price	Number	6	It store product price	Product Muster	It contain product price
14	Id/ Name	Sales Id/ Name	Number/ Text	20	It store Sale Id/ Name	Sales Muster	It contain sales id/ name
15	Quantity	Sales Quantity	Number	5	It store sales quantity	Sales Muster	It contain sales quantity

REPORT TESTING

Test Case #	Test Case Description	Test Data	Expected Result
1	Verify that the user is able to log in with valid credentials and is denied access with invalid credentials.	Username : admin Password: admin	Login should be successful.
2	Search for a product by name and id verify that the correct product details are displayed.	Id : 11	Product details should be correctly displayed.
3	Add one or more products to the cart and verify that the total amount is updated accordingly.	Id:11, Quantity: 5 Id:12, Quantity: 4	The product details should be properly added and updated accordingly.
4	Remove one or more products from the cart and verify that the total amount is updated.	Id:11	The product details should be properly remove and updated accordingly.
5	Verify that the software allows the user to add, edit, and delete employee information, including personal details, job title, salary, and performance evaluations.	Id: 1, name: om, contact:9865784 565, age: 21, qualification: -, salary:10000	The employee details should be properly add, edit and remove accordingly.
6	Verify that the software is able to calculate employee salaries and show the salaries are paid or not.	Id:1, name: om, salary: 10000, Bonus: 1200, paid_date: 17	The employee salary should be paid accordingly

7	Add and update one or more products from stock and updated their amount and quantity accordingly.	Id: 11, name: Tooth Paste, price: 120, quantity: 15	The stock details should be properly added and updated accordingly.
8	Search the product from stock and show the details.	Id:11	The stock details should be display
9	Remove one or more products from the stock and verify that the product details updated.	Id: 11	The product details from stock should be properly remove accordingly.
10	Verify that the software is able to generate sales receipt , shows the proper amount and details of the product	Id: 11, name: Tooth Paste, price: 120, quantity: 1	The product details and the sales details with the proper amount should be display properly.
11	Verify that the software is able to generate reports, such as sales reports.	Product_id : 11	The product details and the sales details should be display properly.

LIMITATIONS AND CONCLUSION

Limitations:

- **Compatibility:** The software may have compatibility issues with certain hardware or software configurations, which could affect its performance and usability.

- **Customization:** The software may not be easily customizable to meet the specific needs of individual supermarts, which could limit its usefulness in certain contexts.

Conclusions:

- Supermart software can streamline and improve the efficiency of supermart operations, resulting in increased customer satisfaction and profitability.

- The success of the software will depend on its ability to meet the needs of supermarts, as well as its ease of use and reliability.

- Continuous improvement and updates are essential to ensure the software remains up-to-date and relevant in a rapidly changing market.

- Overall, the effectiveness of the supermart software will depend on various factors such as user adoption, market demand, and the ability to address the limitations and challenges of the software.

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