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Pharmacy Managmenmt System

Software Development Analysis

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# 1: Introduction:

Pharmacy management system is designed to improve the accuracy, enhance safety and efficiency in the pharmaceutical store. It is a computer based system which helps the Pharmacist to improve inventory management, cost, medical safety etc. It will be developed to ensure the security of information and reliability of Pharmacy records when accessing and providing services to the customers. The information gathered during the data collection will be properly analysed. The application will hence reduce the loss of information unlike the existing system and also information will be processed fast. This system is all about managing an inventory of employees, medicines, and customers record inside a pharmacy. It also helps in budgeting the pharmacy It provides the pharmacy owners to manage inventory and getting details of the sales. Recruiting new Staff and managing their salaries.

# 2: Software Requirement Specifications

## **2.1 Functional Requirements:**

* System login
  + Different users and their credentials
* Store Records of Customers
  + Store records of customers and their medicines
* CRUD operations
  + Create/Read/Update/Delete users and medicines data
* Bill Report
  + Generate bill upon sales and purchases
* Online Order
  + Online order of medicine (Customer Service)
* Selling Medicine
  + Physical sale of medicine (in stores)
* Budgeting of medicine
  + Adding percentages to initial cost for sale.
* Team Recruitment
  + Acquiring team for physical stores and inventory management

## **2.2 Non-Functional Requirements:**

* Availability of medicines
  + Availability of medicines in stock every time.
* Quick Service
  + We provide fast customer services.
* Friendly staff
  + Educated and Certified Staff
* Manageable Inventory
  + Up to date availability and need of Stock

# 2.3: Project Goals and Objectives:

* To achieve inventory management
* Budgeting
* To sell quality medicine with affordable price
* Providing services
* Automated system with more efficiency and accuracy

# 2.4: Tools and Technology:

* SQL(Database)
* C# (GUI)
* Photoshop (Interface Designing)
* MS Access (for relational Diagram)

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Analysis and Design Artifacts

**Business Modeling**

# **3: Functional Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No** | **Requirement** | **Actor** | **Use Case** |
| 1. | System Login | Admin/User | Logging System |
| 2. | Create Records | Admin | Creating Customer Records |
| 3. | Read Records | Admin | Reading Customer Records |
| 4. | Billing | Admin | Generating Billing receipt |
| 5. | Online Order | Customer | Ordering Medicines Online |
| 6. | Selling Medicine | Customer | Selecting Medicines from Menu |
| 7. | Budgeting | Admin | Budgeting of Employees and Store |
| 8. | Recruitment | Admin | Adding Employee Catalog |
| 9. | Store Records | Admin | Storing Customer Records |
| 10. | Delete Record | Admin | Deleting Customer |
|  |  |  |  |

# **4: Use Cases**

## 4.1: System Login

|  |  |
| --- | --- |
| Use Case Name: | System Login |
| Primary Actors: | System ,Admin, and Employees |
| Stakeholders and Interest | System and Admin |
| Precondition | System must’ve have the software app or web portal |
| Post Condition | System successfully rejects or selects a candidate. |
| Main Success Scenario | Admin or employees Successfully login to the system |
| Extension: |  |
|  |  |

## 4.2: Recruit Employees

|  |  |
| --- | --- |
| Use Case Name: | Recruit Employees |
| Primary Actors: | Admin |
| Stakeholders and Interest | System and Admin |
| Precondition | System must’ve the privileges to initialize the recruitment test. |
| Post Condition | System successfully rejects or selects a candidate. |
| Main Success Scenario | 1. Candidate logs in with his respective credentials. 2. AI of System starts the test. 3. System determines the selection/rejection of a candidate. |
| Extension: |  |

## 4.3: Order Medicine Online

|  |  |
| --- | --- |
| Use Case Name: | Order Medicine Online |
| Primary Actors: | Customer |
| Stakeholders and Interest | Store and Customer |
| Precondition | Customer must’ve an authorized account and logged in. |
| Post Condition | Customer successfully purchased an order for medicine. |
| Main Success Scenario | 1. Customer log in to website. 2. Chose it’s prescribed medicine. 3. Place the order and selects the payment system. |
| Extension: | In case of order failure, contact support system and make the order again. |

## 4.4: Maintain Records of Budgeting

|  |  |
| --- | --- |
| Use Case Name: | Maintain Records of Budgeting |
| Primary Actors: | Admin and System |
| Stakeholders and Interest | System and Admin |
| Precondition | Admin must be logged into system and have permissions to budget catalog. |
| Post Condition | Admin manages and takes account of the monthly, biannually and annually budget of the store. |
| Main Success Scenario | 1. System takes account of every sale. 2. It calculates the profit and loss. 3. Monthly, Biannually and Annually System shows the ROI of the store. |
| Extension: | Update the system to apply new strategies for the PoS. |
|  |  |

## 4.5: Manage Customers Records

|  |  |
| --- | --- |
| Use Case Name: | Manage Customers Records |
| Primary Actors: | System ,Admin, and Employees |
| Stakeholders and Interest | System and Admin |
| Precondition | System must’ve have the software app or web portal |
| Post Condition | System successfully store customers data and allow us to update. |
| Main Success Scenario | Data successfully managed |
| Extension: |  |

## 4.6: Billing Receipt

|  |  |
| --- | --- |
| Use Case Name: | Generating Billing receipt |
| Primary Actors: | Admin |
| Stakeholders and Interest | Store and Admin |
| Precondition | Admin must be logged into system and have permissions. |
| Post Condition | Admin successfully generates a billing receipt after selling the medicine. |
| Main Success Scenario | 1. Admin take account of medicines ordered by customer 2. Adds the medicine to system to scan for prices. 3. Generates a Total Bill with receipt |
| Extension: | If Scanner can’t read the medicine bar code, enter the medicine id manually. |

# 5: Use Case Diagram

Diagram

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# 6: Domain Model

## 6.1 Classes:

Diagram

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## 6.2: Domain Model Diagram:

Diagram

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# 7: System Sequence Diagrams

# 7.1: Admin Login

Diagram

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# 7.2: Add new Employee

Diagram, table

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# 7.3: Employee login

Table

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# 7.4: Insert new customer

Diagram

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# 7.5: Search for medicine

Diagram

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# 7.6: Sale Medicine

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# 8: Operational Contract

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Contract: insertMedicine

Operation: insertMedicine(medicineID: medId, quantity: count)

Cross Reference: Use Cases: Medicine

Preconditions: New medicine required for sale.

Postconditions: A new medicineId was created (instance creation)

Quantity became the count of availability (attribute modification)

Medicine description updated, based on medicineId match (association formed)

# 9: Sequence Diagram

# 9.1: Insert New Employee

Diagram

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# 9.2: Login

Diagram

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# 9.3 Sale Medicine

Diagram

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# 10: Communication Diagram

Diagram

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# 11: Class Diagram

Diagram, schematic

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# 12: Package Diagram

Diagram

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# 13: Activity Diagrams

## 13.1

Diagram

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## 13.2

Diagram

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# 14: State Machine Diagrams

## 14.1:

Diagram

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## 14.2:

Diagram

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## 14.3:Diagram Description automatically generated

# 15: Component Diagram

Diagram

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