SOFTWARE REQUIREMENT SPECIFICATION

STOCK MAINTENANCE SYSTEM

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1. Problem analysis and project planning

1.1 Introduction

The stock maintenance system is basically for the customers who access the information about the stock (here it is books in the book store) and retrieve the information.

1.2 Objectives

The purpose of the document is to define the requirements of the stock maintenance system. This supplementary specification lists the requirements that are not readily captured in the use cases of the use case model. The supplementary specification & the use case model together capture a complete set of requirements on the system.

1.3 Scope

This supplementary specification applies to the stock maintenance system. This specification defines the non-functional requirements of the system, such as reliability, usability, performance and supportability as well as functional requirements that are common across a number of use cases.

1.4 Problem Statement

A new stock maintenance system for a bookstore is to replace the existing maintenance system which is inefficient. The new stock maintenance system will allow the employee to record information of the books available in the book store and generate reports based on the total amount of sales.

The new system will have a windows based desktop interface to allow employees to enter the information of sale, purchase orders, change employee preferences and create reports. Employees can only access the information and purchase orders for security purposes.

The system retains information on all the books in the shop. The system retains the records of the cost, edition, author, publication of the books. The employee maintains the information of the sale of books. He can add the books at the right time and update the database.

The customer can view the availability of the required books and the price of the books. The customer can just view them but cannot make any changes.

2. Problem statement (Use case) analysis

2.1 Identified use cases

1. Login:

It is a transaction performed by the user when he wishes to use the stock maintenance system.

2. Maintain Books:

It is a transaction performed by the employee when he wishes to add, change and/or delete books information from the system.

3. Purchase orders:

It is a transaction performed by the manager when he wishes to create, change or delete purchase orders.

4. View Stock:

It is a transaction performed by the manager when he wishes to view the books available in the stock maintenance system.

5. View report:

It is a transaction performed by the administrator when he wishes to view the report generated after all the stock updates.

2.2 Identified Actors

1. Employee:

The employee can add, change and/or delete the information from the system.

2. Customer:

The customer can just view the books available in the system.

3. Manager:

The manager can create, change or delete purchase orders.

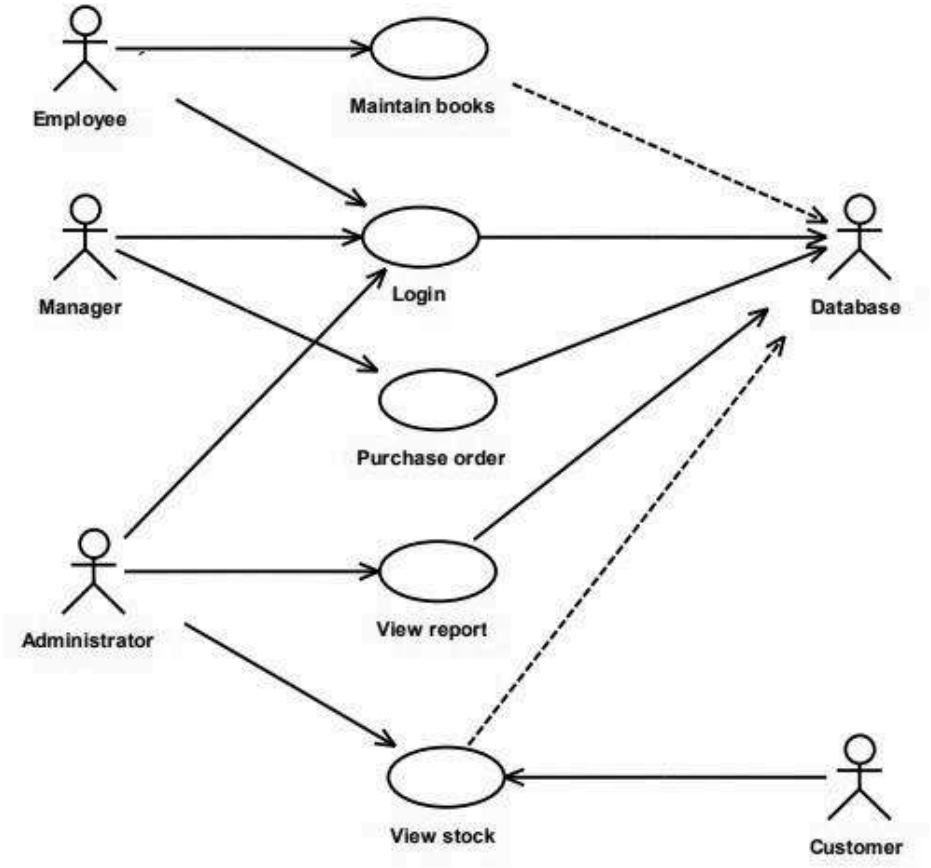
4. Administrator:

The administrator maintains all the database and reports. He is responsible for changing the information of the database and takes care of the payment and administrative reports.

5. Database

The database is the collection of data where the data is stored and form where the data can be retrieved.

2.3. Use case diagram



3. Design of Stock Maintenance System

3.1 Design Documentation

3.1.1. Login

3.1.2 Brief description:

This use case describes how a user logs into the stock maintenance system.

3.2 Flow of events:

3.2.1 Basic flow:

This use case starts when the actor wishes to login to the stock maintenance system.

1. The system requests that the actor enter the name and password.

2. The actor enters their name and password.

3. The system validates the entire name and password and logs the actor into the system.

3.2.2 Alternative flow:

1. If in the basic flow, the actor enters an invalid name and password the system displays an error message.

2. The actor can choose to either return to the beginning of the basic flow or cancel the login at which point the use case ends.

3.3 Pre Conditions:

None

3.4 Post Conditions:

If the use case is successful the actor is now logged in the system, if not the system state is unchanged.

4. Purchase Orders

4.1 Brief description:

This use case describes how the manager provides orders for new stock in the stock in the stock maintenance system.

4.2 Flow of events:

4.2.1 Basic flow:

This use case starts when the manager wishes to record and maintain purchase orders. This includes adding, changing, and deleting purchase orders.

1. The system requests that the manager specify the function he/she would like to perform (add, change or delete).

2. Once the manager provides the required information; one of the sub flows is executed.

3. If the manager selected creates the purchase order, it is executed.

4. If the manager selects a change purchase order, the sub flow is executed.

5. If the manager selects the delete purchase order then that sub flow is executed.

4.2.1.1 Create Purchase Orders

1. The system requests the manager to enter the purchase order information; this includes the name of the book, quantity, and edition.

2. Once the information is provided, the system generates and assigns an order number.

4.2.1.2 Change Purchase Orders

1. The system requests to enter the order number.

2. The manager enters the id number; the system retrieves and displays the information.

3. The manager makes the desired changes to the orders.

4. The system updates the information.

3.2.1.3 Delete Purchase Orders

1. The system requests the manager to enter the id number.

2. The manager enters the number; the system retrieves and displays information.

3. The system provides a manager to confirm deletion of orders.

4. The manager verifies deletion.

5. The system deletes the orders specified.

4.2.2 Alternative flow:

i. Purchase Order not found:

If in the change order or delete purchase order sub-flows, the purchase order with specified id number does not exist, the system displays an error message the manager can then enter a different number or cancel the operation at which point the use case ends.

ii. Cancel Deleted:

If in the delete purchase order sub-flow the manager decides not to delete the purchase order, the delete is cancelled and basic flow is started at the beginning.

4.3 Pre Condition:

The manager logs on the system.

4.4 Post Condition:

If the use case is successful the manager makes the purchase orders else the system is unchanged.

5. View stock

5.1 Brief description

This use case describes how the customer views the stock maintenance system.

5.2 Flow of events:

5.2.1 Basic flow:

This use case starts when the customer wishes to view the books available in the system.

1. The system requests the customer to enter the details (author, name, publication, and edition) of the book required.

2. Once the information is provided the system displays the book information.

5.2.2 Alternative flow:

1. If in the basic flow the book specified is not found the system displays an error message.

2. The customer can enter the different book details or cancel the operation at which point the use case ends.

5.3 Pre Condition:

None:

5.4 Post Condition

If the use case was successful the customer is provided with the information if not the system state is

6. View Report

6.1 Brief description:

This use case describes how the administrator views the reports in the stock maintenance system.

6.2 Flow of events:

6.2.1 Basic flow:

This use case starts when the administrator wishes to view the report generated after the stock update.

1. The system specifies the administrator to enter his id.

2. Once the administrator is provided, the system retrieves and displays the report.

3. The administrator is provided; the system retrieves and displays the report.

6.2.2 Altern

6.2.3 ative flow:

1. If the id is incorrect the system displays an error message.

2. The administrator can either re-enter the correct id or else he can cancel the operation at which point the use case ends.

6.3 Pre condition:

The administrator logs on the system.

6.4 Post condition:

If the use case is successful, the administrator views the report, if not, the system report is unchanged.

unchanged.