Student Auditorium Management

Software (AMS)

Software Requirement Specification (SRS)

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Contents

1. Introduction

1.1 Purpose

This SRS describes the software functional and non-functional requirements for release of the Auditorium Management System Software (*AMS*) . This software is a standalone application and is designed to handle various types of social and cultural events conducted in the auditorium. Unless otherwise stated, all requirements specified here are of high priority .

1.2 Product Scope

This software consists of following functions:

1. Adding new events as per availability of the Auditorium, and editing events which are already present.

2. Allocating Balcony and Ordinary Seats for sale or to offer as complementary gifts. Also fixing the price of different seats.
3. Booking and Cancellation of seats for an event.
4. Printing Ticket for booking and cancellation of a seat at an event.
5. Sending notification for booked and cancelled seats.
6. Querying the number of available seats of different classes for an event.
7. Querying the percentage of seats booked for various classes of seats and the amount collected in each case.
8. Booking available seats for a particular show.
9. Creating new authorized sales person's and clerk's login accounts.
10. Recording all the transactions including the sales person ID.
11. Preparing balance sheets for each event and also for the entire year.

2.Overall Description

2.1 Product Perspective

This software is built to add new events as per availability of the Auditorium, and edit events which are already present. Users can also allocate Balcony and Ordinary Seats for sale or to offer as complementary gifts for an event. Users can also fix the price of different seats for an event. Users can book seats and also cancel already booked seats for an event. Users get printed tickets for booking and cancellation. It also sends notification on booking and

cancellation of seats. Users can check the number of available and book seats for an event. Users can create new authorized sales person's and clerk's login accounts. It also records all the transactions. It also prepares balance sheets for each event and also for the entire year. Users can also create new authorized sales person's and clerk's login accounts.

3.Plan

12-02-20 -- 17-02-20	SRS Preparation
Mid Sem Break	
26-02-20 -- 10-03-20	Learning Databases,Java Swing
10-03-20 -- 14-04-20	Development + Modification

4.Functional Requirement

4.1 Customer

1. Query Availability of Seats : To check availability of seats for an event just click on the event.

4.2 Sales Person

Sales Person should be logged in to do the following functions :

1. Book New Seat : Salesperson books seats when asked by a Customer. To book seats SP has to choose BOOK SEAT option. If the seat is not available then the software displays a message that the seat is not available. If a seat is available then SP can book a new seat by clicking on the seat. SP has to enter Costumer's general information for notification.

2. Cancel Booking : To cancel a booking SP has to choose the Cancel Booking option. Select which Event and then choose a seat to cancel the booking.

4.3 Clerk

Clerk should be logged in to do the following functions :

1. Prepare Balance Sheet : To make a new Balance Sheet for an event clerk has to choose a new balance sheet and then choose an event. To update the current balance sheets choose update.

4.4 Show Manager

Show Manager should be logged in to do the following functions :

1. Add a new Show : SM can add a new event if the auditorium is available for that time. It includes allocating Balcony and Ordinary Seats for sale or to offer as complementary gifts for functionaries of the students' society or to VIPs for that event. It also includes fixing the price of different seats for that event.

2. Edit Show : SM can edit existing show's information.

3. Checking Show Status : SM can check the number of available and booked seats for an event and also balance sheets for each show.

4. Create new Personal : SM can create new authorized sales person's and clerk's login accounts.

5. View Transaction Detail : SM can view transactions done by each Salesperson like seat booking or seat cancellation details. This can be later used for determining their promotions, gifts or fines.

6. View Balance Sheet : SM can view the balance sheet that includes various types of expenditure for each event. It can also view a balance sheet that has all the booking and expenditure data of the entire year.

5.Non Functional Requirement

5.1 Availability

1. The Software should be available 24 hours a day,7 days a week.

5.2 Maintainability

1. The system must be maintainable without substantial modifications.Due to a limited number of administrators and support staff,it is important that the limited should be mostly self-sustaining.This will reduce the number of hours spent maintaining the system and simplify maintenance tasks.

5.3 Performance

1. The system should support at least 100 concurrent users as the use is thought to be limited when it comes to no.of users.

5.4 Security

1. The security for this software is of prime importance as we store users details.

5.5 Backup Requirements

1. The software should be equipped with a back-up facility so that loss of data is prevented in case of impromptu shutdowns or other errors, leading to the crashing of the software.

5.6 Portability Requirements

1. The software should be usable in different environments and the pre-requirements for different environments are minimal and almost the same.

5.7 Usability Requirements

1. The software should have a user-friendly interface and the tools should be easy to comprehend and use. Most of the complex work should be done in the back-end away from the screen, which would lead to easy handling and thus customer satisfaction.

6.Software Environments and Hardware Environments

6.1 Hardware Requirement

1. A computer with a monitor, a keyboard and a mouse suffices. A printer must be connected to the computer to print the ticket(Optional).

6.2 Software Requirement

1. This Software consists of a single user multitasking system. This software does not depend upon any other software except Java but requires internet connection for receiving and sending data to an online database.The GUI for the software will be created in Java Swing on a Linux OS.

6.3 Communication Requirement

1. Internet connection is necessary for storing data in an online database so that other users can also share data.

6.4 Memory Constraint

1. This Software is quite memory efficient as it stores all the data in an online database. All the temporary files which are created by

the software while running are erased upon exit.

7.Publicity and Expected Expenditure

7.1 Publicity

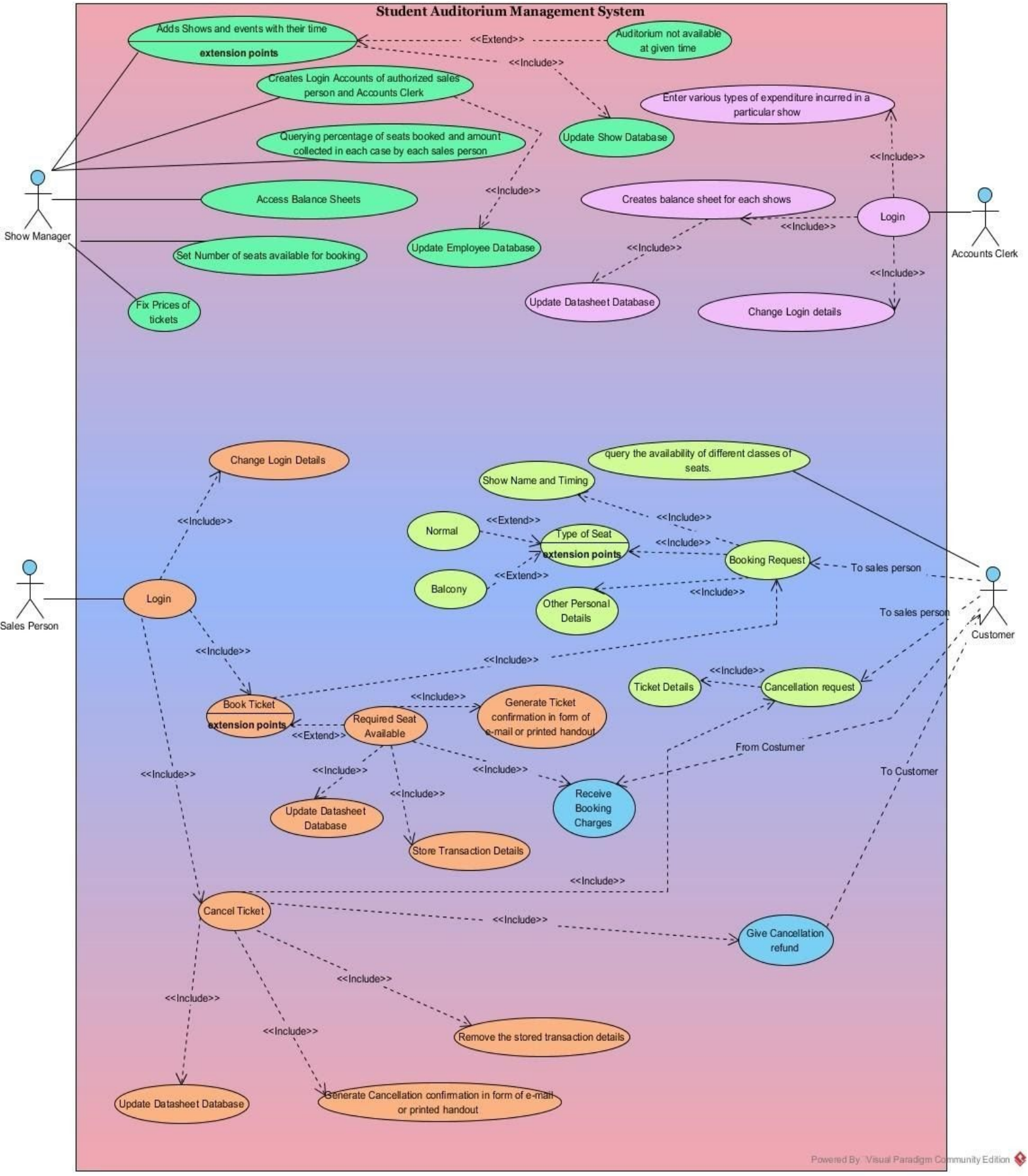
1. Every organisation wants to maximize its profit and as well as wants to make the functioning smooth.
2. This software will help the administrator of auditorium to smoothly sell their tickets to the customer as well to maintain the balance sheet without any paperwork.
3. Free coupons can be given to those who book tickets occasionally from the website.
4. The software can be publicized through facebook and whatsapp.
5. The software is very user friendly.
6. The Software is easy to use and has a comfortable interface which is platform independent for reaching out to a wider audience.

7.2 Expected Cost

1. Since this software is the solution to an important problem of management of auditoriums,I would like to keep this software as an open-source project, which would be free of cost, and anyone with sufficient knowledge can contribute to the source code so that even more functionalities could be added to an already good software.
2. We may also charge a one time nominal money from users for advertisement and maintenance purposes (500RS).

8. SDD(Software Design Description)

8.1 Use Case Diagram


Student Auditorium Management System
Adds Shows and events with their time
extension points
<<Extend>>
Auditorium not available at given time
<<Include>>
Creates Login Accounts of authorized sales person and Accounts Clerk
Enter various types of expenditure incurred in a particular show
Update Show Database
Querying percentage of seats booked and amount collected in each case by each sales person
<<Include>>
Show Manager
Access Balance Sheets
<<Include>>
Creates balance sheet for each shows
Login
Accounts Clerk
Set Number of seats available for booking
Update Employee Database
<<Include>>
<<Include>>
Fix Prices of tickets
Update Datasheet Database
Change Login details
Change Login Details
query the availability of different classes of seats.
Show Name and Timing
<<Include>>
<<Include>>
Normal
<<Extend>>
Type of Seat
extension points
<<Include>>
Booking Request
To sales person
Sales Person
Login
Balcony
<<Extend>>
Other Personal Details
<<Include>>
To sales person
Customer
<<Include>>
<<Include>>
<<Include>>
Ticket Details
<<Include>>
Cancellation request
Book Ticket
extension points
<<Include>>
Generate Ticket confirmation in form of e-mail or printed handout
Required Seat Available
<<Extend>>
From Costumer
<<Include>>
<<Include>>
<<Include>>
To Customer
Update Datasheet Database
<<Include>>
Receive Booking Charges
Store Transaction Details
<<Include>>
Cancel Ticket
<<Include>>
Give Cancellation refund
<<Include>>
<<Include>>
<<Include>>
Remove the stored transaction details
Update Datasheet Database
Generate Cancellation confirmation in form of e-mail or printed handout
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