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**Theory Assignment – 1**

1. **Software Requirements Specification (SRS) of Students' Auditorium Management Software.**

**Introduction**

**1.1 Purpose**

The purpose of this document is to specify the requirements for the ‘Students' Auditorium Management System’. The system will be used to manage and monitor the seating arrangement, ticket booking, sales transactions, and financial records of social and cultural events held in the auditorium.

**1.2 Scope**

The scope of this project includes the development of software for managing and monitoring the seating arrangement, ticket booking, sales transactions, and financial records of social and cultural events held in the students' auditorium. The system will have two categories of seats: balcony seats and ordinary seats, with varying prices based on the popularity of the event. The system will also allow spectators to query seat availability, book tickets, and cancel bookings.

**1.3 Definitions, Acronyms, and Abbreviations**

Not applicable

1.4 References

Not applicable

**General Description**

**2.1 Product Overview**

The Students' Auditorium Management System is a software solution for managing and monitoring the seating arrangement, ticket booking, sales transactions, and financial records of social and cultural events held in the students' auditorium. The system will allow the show manager to fix the price of balcony and ordinary seats, determine the number of seats that can be put on sale, and enter show dates, the number of shows on any particular date, and the show timings. The system will also allow authorized salespersons to log in and make sales transactions, which will be recorded for computing their commission payable and the amount collected.

**2.2 Product Functions**

The main functions of the Students' Auditorium Management System are:

Tracking and managing the seating arrangement of balcony and ordinary seats for social and cultural events held in the students' auditorium.

* Allowing spectators to query seat availability, book tickets, and cancel bookings.
* Allowing the show manager to fix the price of balcony and ordinary seats, determine the number of seats that can be put on sale, and enter show dates, the number of shows on any particular date, and the show timings.
* Recording sales transactions made by authorized salespersons, including their id and the amount collected, for computing their commission payable.
* Allowing the accounts clerk to enter the various types of expenditures incurred for a show, including payment to artists.
* Preparing balance sheets for every show and a comprehensive up-to-date balance sheet for every year, which can only be accessed by the show manager.

**Specific Requirements**

**3.1 External Interface Requirements**

The Students' Auditorium Management System will run on a high-end PC and use free software such as Linux, MySQL, and Apache web server.

**3.2 Functional Requirements:**

**Use Case 1:** Seat Availability Query

**Primary Actor:** Spectator

**Pre Condition:** Internet connection available.

**Main Scenario:**

a) Spectator launches the Students' Auditorium Management System website.

b) System displays the main screen, showing the list of upcoming shows.

c) Spectator selects the show they want to attend.

d) System displays the seat layout for the selected show, showing the availability of balcony and ordinary seats.

e) Spectator selects the type of seat they want to book.

f) System displays the available seat numbers for the selected type of seat.

g) Spectator selects the seat number they want to book.

h) System prompts the spectator to provide their personal information and payment details.

i) Spectator provides the required information and confirms the booking.

j) System displays the ticket with seat numbers and booking details, which the spectator can print.

**Alternate Scenario:**

(a). Show is sold out

(a) 1. System displays a message indicating that the show is sold out.

(a) 2. Spectator can try booking for a different show.

**Use Case 2:** Ticket Booking

**Primary Actor:** Spectator

**Pre Condition:** Internet connection available and seats available for booking.

**Main Scenario:**

a) Spectator launches the Students' Auditorium Management System website.

b) System displays the main screen, showing the list of upcoming shows.

c) Spectator selects the show they want to attend.

d) System displays the seat layout for the selected show, showing the availability of balcony and ordinary seats.

e) Spectator selects the type of seat they want to book.

f) System displays the available seat numbers for the selected type of seat.

g) Spectator selects the seat number they want to book.

h) System prompts the spectator to provide their personal information and payment details.

i) Spectator provides the required information and confirms the booking.

j) System records the booking and updates the seat availability status.

k) System displays the ticket with seat numbers and booking details, which the spectator can print.

**Alternate Scenario:**

(a). Spectator cancels the booking

(a) 1. System cancels the booking and updates the seat availability status.

(a) 2. System refunds the payment made by the spectator.