**SOFTWARE ENGINEERING CASE STUDY**

Topic: Booking Seats in a Cinema Theater

Group: 11

Dept-Sec: CSE-D

**Members Details**

| Roll No | Name | Role |
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**About Project**

In our project, we deal with booking seats in a cinema theatre. This project allows users to check the availability of seats in theatres of the prefered movie on a prefered date at a prefered time. This project allows the user to book everything in advance. This helps the management of movie theatres become much easier because only minimal manpower is necessary. In addition, this project also allows the user to pre-book food etc and use appropriate discounts to reduce the cost. This project also allows users to book live events happening around their location.

**Stake Holders**

* A.Customers
* B.Theatre management
* C.Third party apps

**Modules**

| A | Admin login | Administrator view of the application.  Sole power to control system functions. |
| --- | --- | --- |
| B | User Registration And Login | User registration and login for users to access the services provided. |
| C | Movies List | List of Movie Cards that the user can choose. |
| D | Seat Availability Check | Real-Time seat availability check. |
| E | Online Seat Booking | Seat Booking in accordance with the date and time slots. |
| F | Payment Gateway | Online Payment gateway to facilitate the payment and billing process. |
| G | Ticket Confirmation Mail | Automated ticket confirmation mailing system |
| H | Seat Cancellation | A system that handles the cancellation of seats and updates the database for the functioning of the booking system. |
| I | Callendar like interface |  |

**Database Overview**

| **Table name** | **Master/Transaction** | **Primary Key** | **Description** |
| --- | --- | --- | --- |
| user | Master | User\_id | Details of each user |
| payment | Transaction | Payment\_id | Payment details for each transaction |
| show | Transaction | Show\_Number | Timing details of each show |
| movie | Master | Movie | Movie list |
| Cinema\_hall | Master | Hall\_Number | Details of each cinema hall |
| Cinema\_seat | Master | Seat\_Number | Details of seats |
| booking | Transaction | Booking\_id | List of seats booked and show |

**Project Report**

Identification of need

* The old manual system was suffering from a series of drawbacks. Since the whole of the system was to be maintained with hands, the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order.

Feasibility Study

* After doing the project Movie Ticket Booking System, and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project.
* The feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can easily be done based on the future upcoming requirements.

1. Economical Feasibility

This is a very important aspect to be considered while developing a project. We decided on the technology based on the minimum possible cost factor.

2. Technical Feasibility

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification (SRS), and checked if everything was possible using different types of frontend and backend platforms.

3. Operational Feasibility

No doubt the proposed system is fully GUI based and is very user-friendly. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

Software Requirement Specifications:

The proposed system has the following requirements:

1. The system needs to store information about the new entry of the Movie.
2. The system needs to help the internal staff to keep information about tickets and find them as per various queries.
3. Systems need to maintain quantity records.
4. The system needs to keep a record of Booking.
5. The system needs to update and delete the record.
6. It also needs a security system to prevent data.

**Assumption**

1. Mobile responsive web application.
2. A business application to sell tickets for a single theater with multiple screens.
3. The quality of all of the tools or libraries are in good working condition throughout the project life-cycle.

**Requirements**

1. customer/user
2. Register as a user
3. Log in as a user
4. Change password
5. Search movies by name, genre, release
6. View individual movie details
7. Give review and rating
8. Select show and view show details
9. Select seats
10. Different payment options
11. Cancel ticket
12. Ticket download
13. Customer dashboard
14. Write feedback
15. Confirmation mail to users

2. Theater/Administrator

1. Administrator view
2. Add/Remove/Update screen
3. Add/Remove/Update movie
4. Add/Remove/Update show
5. Add/Remove Seats
6. View ticket sales
7. View customer details
8. View movie revenue
9. View and reply to customer feedback

3. Food service

1. Add/Remove/Update food items
2. Update availability
3. View orders

Client:

Software requirements:

1. Web browser

Hardware requirements:

1. Internet connection

Server:

Software requirements:

1. DNS for naming on the internet
2. MySql database
3. Latest version of Nodejs / python

4. Server OS

Hardware requirements:

1. Internet connection - 10 Gbps
2. Ram - 16GB
3. Cpu -
4. Storage- 1 TB
5. Solid State Storage Device

Epics:

1. User authentication
2. Searching movies
3. Searching shows
4. Booking tickets
5. Admin panel