Cinephilia software requirement specification

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1. Introduction

1.1. Purpose

The purpose of this document is to specify the requirements for a movie ticket booking system, which will allow users to purchase tickets for movies online. The document captures the software requirements and user interfaces that are associated with this system.

1.2 Scope

The Software Requirements Specification lists down all the requirements in a single document. The ticketing system being developed is supposed to provide both the admin and the user the capability to view the movies currently being screened, show timings, availability of seats and multiple other facilities. It is supposed to have the following features:

- Create an account and log in
- View a list of available movies and select the movie they wish to watch
- View a seating chart of the selected screening, select their preferred seats and view the seat availability
- Make payment for their movie tickets
- View their booking history and track their past bookings
- Admin panel for managing the system, adding/removing movies, theaters, and show timings, view reports on ticket sales and revenue

All the features mentioned above are supposed to be implemented in the future stages of the project development cycle. The success of the software would depend on the amount of features mentioned above that end up making into the final product thus developed

1.3 Environmental Characteristics

Operating System: Windows xp, vista, 7, 8, 10, 11, Linux, MacOS etc.

Tech Stack: JavaScript, HTML, CSS, Python and MySQL

2. Organisation of the SRS

2.1 Product Perspective

Cinephilia is aimed to be used by Administrators to improve the efficiency of website of the users and the staff. There are existing competitions in the market, and being as such the product would be developed in order to ensure a user friendly experience. Both new and existing users can utilize the application with ease and stay updated with the latest information about shows, as updated by the administrator.

2.2 Product Features

Cinephile aims to provide real time information about movies available to the user. The features are more or less the same as described in the product perspective. The goal is to provide different services based on the type of user logged in. [member/administrator]

• Members should be provided with updated showtimes of their desired movies and real time information about the seats remaining/available.

• The members should be able to book any movie they went, provided they follow through with the general rules.

• Members are provided with the updated available movie roster, and are allowed to choose as they like, the movie they would like to watch in the upcoming days.

• The administrator has information about the bookings and the seats available for all available showtimes

• The administrator is to be provided with an interface to add/delete movies and update

2.3 User class

The aimed users for this application are the customers, box office staff and the administrators of the partnered theatres.The customers are assumed to have fundamental knowledge about computers and internet. The theatre staff, on the other hand are required to have more in depth knowledge of the workings of the system and are supposed to be able to deal with and rectify the small problems that may arise due to disk crashes, power failures and other catastrophes to maintain the system. The proper user interface, users manual, online help and the guide to install and maintain the system must be sufficient to edify the targeted users on how to use the application without any major issues.

2.4 Operating System

Being developed with HTML and CSS, the software should be able to run on web browsers across multiple platforms including but not limited to web browsers on windows, MacOS, android, IOS etc.

2.5 Functional and non-functional requirements

The movie ticket booking system will have the following functional requirements:

- Movie Listings: The system will provide a list of available movies, including movie details such as the title, synopsis, release date, and rating.
- Showtimes: The system will provide a list of showtimes for each movie, including the date and time of the screening and the location of the theater.
- Seat Availability: The system will display the available seats for each showtime, allowing users to select their preferred seats.
- Ticket Booking: Users will be able to book tickets for a movie and showtime of their choice. The system will provide a secure payment process, allowing users to pay for their tickets using a credit or debit card.

The movie ticket booking system will have the following non-functional requirements:

- User Experience: The system will provide a user-friendly interface that allows users to browse and book tickets quickly and easily.
- Security: The system will ensure that users' personal and payment information is secure.
- Performance: The system will have fast load times and responsive user interactions.
- Scalability: The system will be able to accommodate increasing numbers of users and movie listings as the system grows.

2.6 Stakeholders

There are several stakeholders in a movie ticket booking system, including:

- Customers: They are the primary stakeholders in the system, as they use the system to purchase tickets for movies.

- Movie theaters: They are the suppliers of the movie-watching experience, and the movie ticket booking system is a crucial component for them to manage their operations and revenue.
- Film distributors: They provide the films that are shown in theaters and often have a financial interest in ticket sales.
- Payment providers: They provide the payment processing services for the ticket transactions.

All of these stakeholders have a vested interest in the success of the movie ticket booking system and may be impacted by its performance, features, and overall success.

3. Design and Implementation Constraints

Design constraints for our proposed project might contain-

User interface: The system should have a user-friendly interface to make it easy for customers to navigate and book tickets.

Database: The information of all the users of the software must be stored in a database easily accessible by the online ticketing system, and the database storing the billing information requires to be compatible with the interface of the software

Payment gateway: The system should have a secure payment gateway to process payments from customers.

Security: The system should be secure enough to make users comfortable with using it without worries.

The implementation constraints might include-

Programming language: The system should be implemented in Python to take advantage of its libraries and frameworks for web development and data management.

Framework: The system should be implemented using a web framework such as Flask to simplify the development process and make it easier to add features in the future.

Scalability: The system should be able to handle a high volume of traffic and transactions.

Testing: The system should be thoroughly tested to ensure that it is reliable and free of bugs.

ER DIAGRAM-

Entity:-

Customer, Admin, Show ,Screen ,Movie, Ticket

Attributes:-

Customer ->

Cust_id , Cust_Contact_no, Cust_name , Cust_E-mail, Age, DOB

Admin ->

Admin_id , Admin_contact_no, Admin_name , Admin_E-mail

Screen ->

Screen_id , Seats, Screen_Name

Movie ->

Movie_id ,Director ,Rating, About, Movie_name , Genre ,Cast

Show ->

Show_id , Start_Time, Show_Date, Movie , Language

Ticket ->

Ticket_id, Price, Show_time, Seat_no. , Movie , Screen_name

Relationship:-

1. Admin Sells Tickets (1:M)

2. Admin Manages Shows (1:M)

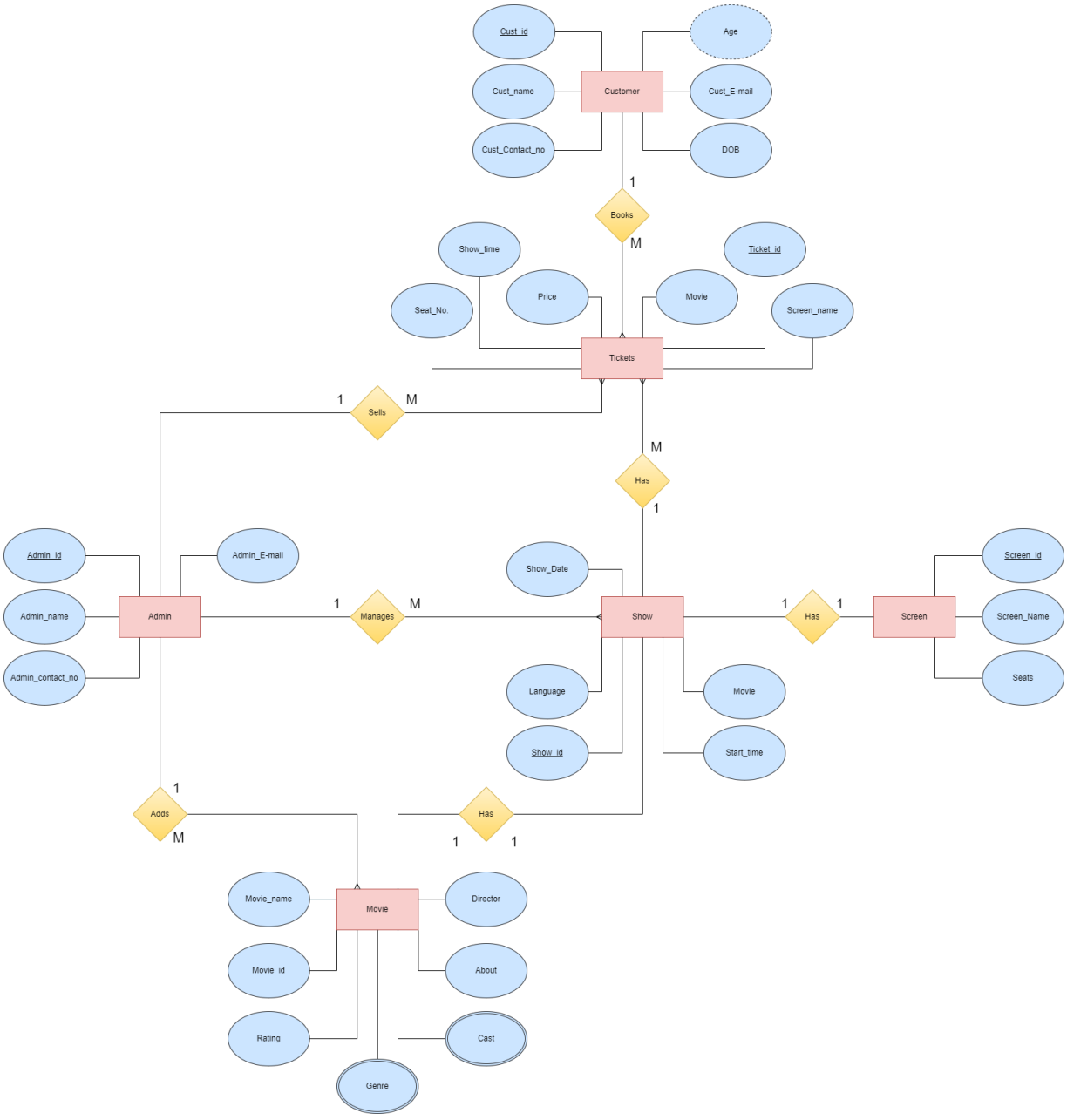
3. Admin Adds Movies (1:M)

4. Show Has Tickets (1:M)

5. Customer Books Tickets (1:M)

6. Show Has Screen (1:1)

7. Show Has Movie (1:1)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