

5/25/2023

Movie ticket

SDD

SUPERVISED

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Software Design Document (SDD) Template

Software design is a process by which the software requirements are translated into a representation of software components, interfaces, and data necessary for the implementation phase. The SDD shows how the software system will be structured to satisfy the requirements. It is the primary reference for code development and, therefore, it must contain all the information required by a programmer to write code. The SDD is performed in two stages. The first is a preliminary design in which the overall system architecture and data architecture is defined. In the second stage, i.e. the detailed design stage, more detailed data structures are defined and algorithms are developed for the defined architecture.

This template is an annotated outline for a software design document adapted from the IEEE Recommended Practice for Software Design Descriptions. The IEEE Recommended Practice for Software Design Descriptions have been reduced in order to simplify this assignment while still retaining the main components and providing a general idea of a project definition report. For your own information, please refer to [IEEE Std 1016-1998](#)¹ for the full IEEE Recommended Practice for Software Design Descriptions.

¹

Document Software Design

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INTRODUCTION

1.1 Purpose

the purpose of a booking cinema project is to streamline the ticketing process, enhance the customer experience, and optimize the cinema's operations by leveraging digital technologies.

1.2 Scope

- This is a web application for buying movie tickets online. Customers can buy tickets 24×7.
- This system is developed keeping in view of the current multiplex working pattern. Schedule for many screens can be programmed in this application.
- Customer can choose city and name of multiplex where they want to see movie and get their movie timings.
- Customers can see a graphical view of the seat availability and choose their desired seat.
- They can pay ticket amount online via credit card etc.

1.3 Overview

A booking cinema project is an initiative aimed at creating a digital platform or system that allows customers to conveniently book movie tickets in advance. The project typically involves the development of a user-friendly interface that enables users to browse through available movies, view showtimes, select seats, and purchase tickets online.

The main objective of a booking cinema project is to streamline the ticketing process and enhance the overall customer experience. By offering an online booking system, customers can save time by avoiding long queues at the cinema and have the convenience of securing their tickets from anywhere at any time..

1.4 Definitions and Acronyms

1. **Booking Cinema Project:** The initiative focused on creating a digital platform or system that allows customers to book movie tickets in advance, providing convenience and efficiency in the ticketing process.
2. **User Interface (UI):** The visual and interactive elements of the digital platform or system through which users interact and perform actions such as browsing movies, selecting seats, and completing ticket bookings.
3. **Movie Database:** A centralized repository that stores and manages information about movies, including titles, genres, synopses, cast, crew, release dates, and other related data.
4. **Showtime Management:** The process of scheduling and managing movie showtimes, including assigning auditoriums, updating real-time availability, and ensuring accurate information about screening times.
5. **Seat Selection:** The feature that allows users to choose their preferred seats from a seating chart or map of the cinema hall, with options to view available seats and select desired locations.
6. **Online Payments:** The integration of secure online payment gateways that enable customers to make ticket purchases using various methods such as credit cards, digital wallets, or online banking.
7. **Electronic Tickets (E-tickets):** Digital tickets that are generated upon successful booking and can be either printed or displayed on mobile devices for verification at the cinema.

Acronyms:

UI: User Interface

API: Application Programming Interface

UX: User Experience

2. SYSTEM OVERVIEW

A booking cinema project involves the development of a digital platform or system that allows customers to book movie tickets conveniently.

The system components work together to create a comprehensive booking cinema system that simplifies the ticketing process, enhances the user experience, and maximizes ticket sales and revenue for the cinema.

3. DATA DESIGN

3.1 Data Description

A booking cinema project involves managing various types of data related to movies, showtimes, bookings, and more. Here is a description of the main data entities involved:

1. Movie Data:

- Movie Title: The title of the movie.
- Genre: The category or genre of the movie (e.g., action, comedy, drama).
- Synopsis: A brief summary or description of the movie.
- Duration : The duration or running time of the movie.

2. Showtime Data:

- Movie ID: A unique identifier for each movie.
- Showtime: The specific time when a movie is scheduled to start.
- Auditorium: The identifier or name of the cinema hall or auditorium where the movie is screened.
- Seat Matrix: A matrix or map representing the layout of seats in the cinema hall, including information about each seat's status

These data entities provide a foundation for managing and organizing the information required for the booking cinema project. The specific data structure and attributes may vary based on the project's requirements and the cinema's needs.

4. COMPONENT DESIGN

User Interface (UI) Component:

The user interface (UI) for a booking cinema project should be intuitive, user-friendly, and visually appealing. It should provide seamless navigation and easy access to various features and functionalities. Here are some key components and elements that can be included in the UI:

Home Page:

branding of the cinema project , movies and cinemas.

Movie Listing Page:

Grid or list view of available movies.

Movie posters or thumbnails with movie titles and basic information.

Quick view or hover-over feature to display additional details about a movie.

Call-to-action buttons to view showtimes or book tickets for a specific movie.

Showtime Selection Page:

Showtime schedule for a selected movie.

Auditorium or hall layout indicating available seats.

Seat selection mechanism (e.g., clickable seats, interactive seating chart).

Proceed to payment or continue button.

Payment Page:

Secure payment gateway integration.

Billing and shipping information input fields.

Payment options.

Order summary displaying the selected movie, showtime, and ticket details.

Confirmation or review page before finalizing the payment.

5. HUMAN INTERFACE DESIGN

5.1 Overview of User Interface

The user interface (UI) of a booking cinema project is the visual and interactive component through which users interact with the platform to browse movies, select showtimes, and book tickets. The UI plays a crucial role in providing a seamless and enjoyable user experience. Here is an overview of the key aspects of the user interface:

Visual Design:

The UI should have an appealing and visually engaging design that reflects the branding and aesthetics of the cinema project. It should incorporate a cohesive color scheme, typography, and imagery to create an inviting atmosphere and enhance the overall user experience.

Navigation and Layout:

The UI should have clear and intuitive navigation to help users easily find their way around the platform. A well-organized layout with logical information hierarchy ensures that important elements, such as movie listings, showtimes, and seat selection, are prominently displayed and easily accessible.

Movie Listings :

The UI should present a visually appealing display of movie listings, including movie posters, titles, and relevant information such as genres, ratings, and synopses.

Showtime Selection and Seat Booking:

The UI should provide an interactive and user-friendly interface for selecting showtimes and booking seats. It should display the available showtimes and allow users to choose their preferred date and time. The seat selection interface should provide a clear view of the cinema hall layout, indicating seat availability and allowing users to select their desired seats.

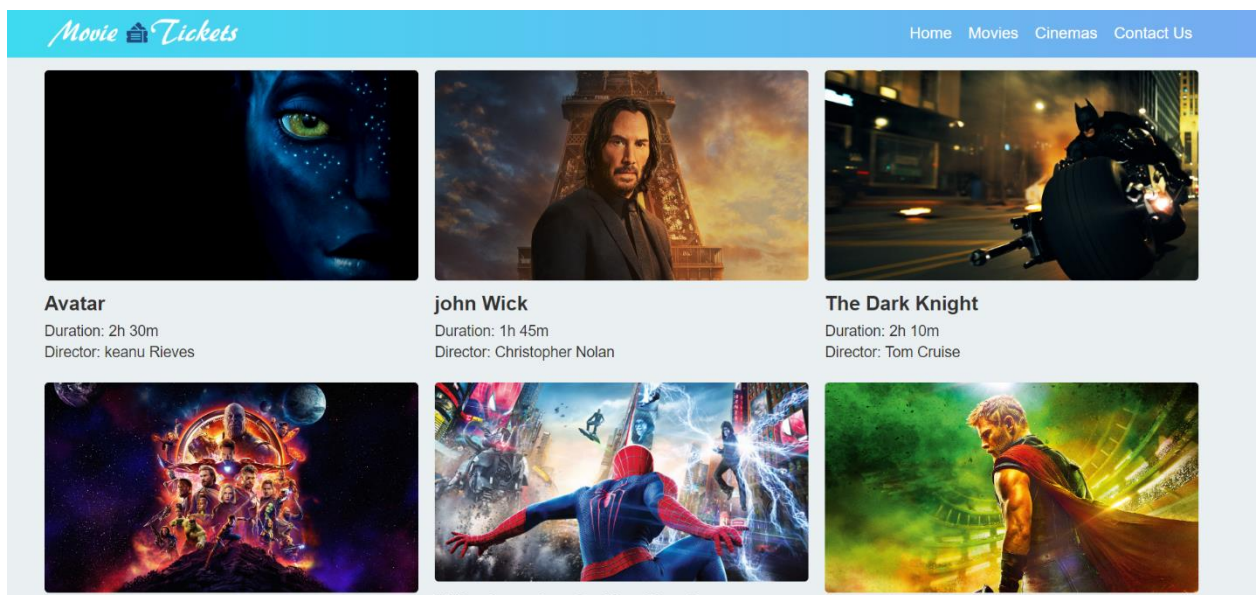
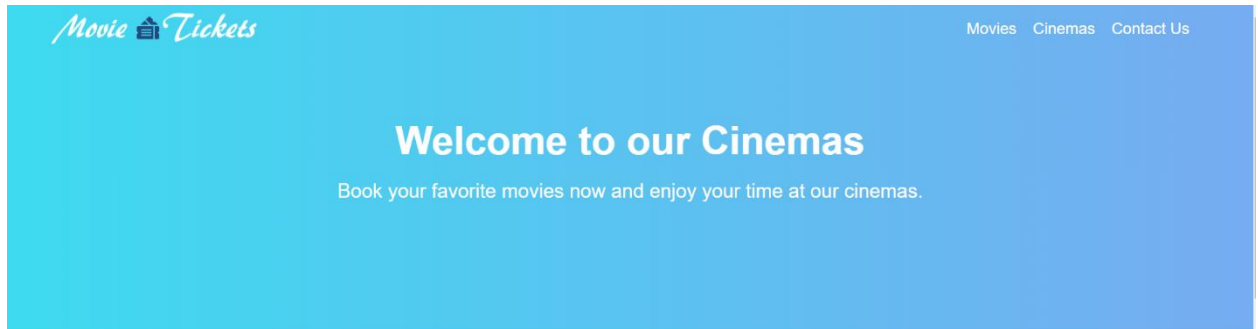
Ticket Booking Process:


The UI should guide users through the ticket booking process with clear and easy-to-follow steps. It should display a summary of the selected movie, showtime, seat numbers, and ticket prices, enabling users to review and make any necessary changes before proceeding to the payment stage.

Secure Payment Integration:

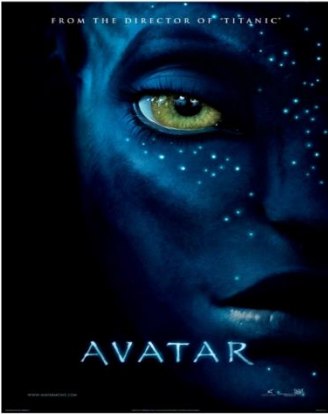
The UI should seamlessly integrate with secure payment gateways, allowing users to make online payments for their ticket bookings. It should provide a smooth and secure payment experience, displaying relevant payment options and guiding users through the payment process while ensuring the protection of sensitive user information.

5.2 Screen Images



Movie  Tickets

[Home](#) [Movies](#) [Cinemas](#) [Contact Us](#)



Name	Avatar
Rate	8.6/10
Language	UNITED-STATE
Kind	Action
Category	PG-13
Time	3h 20m
Translate	Arabic


Choose Cinema

Choose Date

Choose ShowTime

Choose Screen

Submit

Movie  Tickets

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5.3 Screen Objects and Actions

Screen Objects:

Movie Listings: Displays a list of available movies, including movie posters, titles, and brief information.

Showtime Schedule: Shows the available showtimes for a selected movie, including the date, time, and auditorium information.

Seat Selection: Presents the seating layout of the cinema hall, allowing users to choose their preferred seats for a specific showtime.

Ticket Summary: Displays a summary of the selected movie, showtime, seats, and ticket prices before the final booking confirmation.

Payment Gateway: Provides a secure payment interface where users can enter their payment details and complete the ticket purchase.

Actions:

Showtime Selection: Allows users to choose a preferred showtime for a selected movie.

Seat Selection: Enables users to select specific seats from the seating chart or map of the cinema hall.

Ticket Booking: Initiates the ticket booking process after confirming movie, showtime, and seat selections.

Payment Processing: Facilitates the secure processing of payment information and completes the ticket purchase.

Account Creation/Authentication: Supports user account creation or login/authentication to access personalized features and booking history.

6. REQUIREMENTS MATRIX

Requirement ID	Requirement Description	User Interface	Database	Functionality
001	Display movie listings with posters and information	X		
002	Show available showtimes for selected movie	X		
003	Provide a seat selection interface	X		
004	Calculate ticket prices based on number of seat selection			X
005	Allow users to book tickets for selected showtime and seats		X	
006	Integrate secure payment gateway for online ticket purchase	X	X	
007	Support user account creation and login/authentication	X	X	

