

*Software Design Specification
for
Theater Ticketing System*

Version: 1.0

Sept. 21 2023

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Prepared for
CS 250- Introduction to Software Systems
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Fall 2023

1. Project Overview:

This project will create a software for a theater ticketing system, based on customer requirements as specified in the SRS document. This document will provide the streamline of internal queries between user interface and database as well as the architecture of web pages.

2. Object:

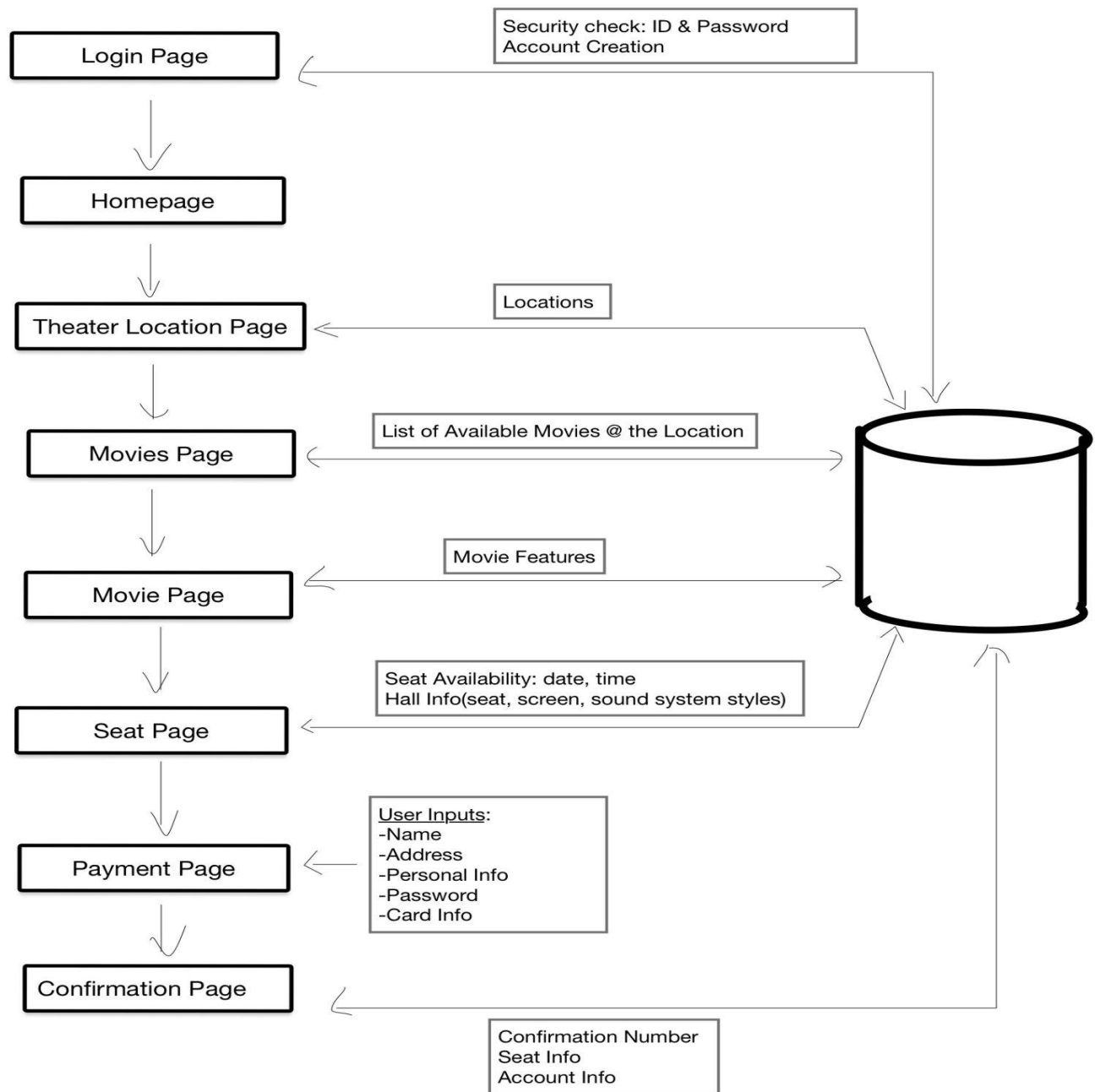
The purpose of this document is to clarify the model of the software to be developed that will enhance maintainability and correctness of the software. It provides an essential structure for developing the right software. This document covers the lower level abstraction.

3. Development Plan:

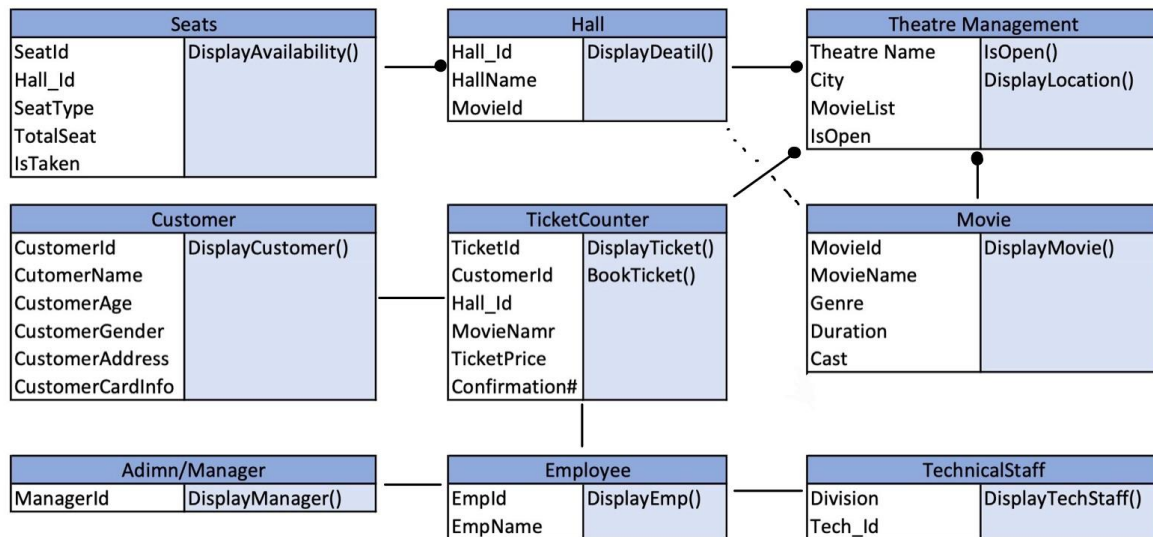
Timeline: Will be done in a couple days. Easy peasy

YAP!

4. Web Page Architecture Diagram:



5. Unified Modeling Language (UML) Class Diagram:



6. Description of Classes:

Theatre Management: The class contains the details of theater

Movie: The movie class will be used to manage movie information such as details and showtimes.

Hall: The hall class will store information about which movies play in each hall

Seat: Seat class will determine if a seat is available for reservation

TicketCounter: This class has features to allow users to reserve seats

Customer: This class will be used to give customers permissions

Employee: This class is used to store employees data and parent class of TechnicalStaff and Admin/Managers classes

TechnicalStaff: This class will store staff employee data

Admin/Manager: Allows for the management of users accounts, informative graphs for important information about movies and guests to make data driven business decisions in terms of when to show movies and what demographics to target for particular genres and titles.

7. Description of Attributes:

Theatre Management:

Movie: Will have attributes such as: genre, runtime, title, description, release date, etc.

Hall: Will have attributes such as: total number of seats, available seats, reserved seats, hall maintenance indicator.

Seat: Will have attributes such as: seat number, seat available, seat reserved, seat under maintenance, accessible seat

TicketCounter: Will have attributes such as: total tickets, available tickets, tickets sold, vip tickets, accessible tickets.

Customer: Customers can search, reserve seats for, and read descriptions of movies

Employee: Employees can redeem customer rewards, check in customers, sell tickets, check seats, play movies, etc.

TechnicalStaff: Technical Staff can play the movies and provide upkeep on equipment

Admin/Manager: Will have attributes such as: manager name, manager id, most popular film, film analysis information and graphs.

8. Description of Operations:

Theatre Management:

1. IsOpen() - Determines if the theater is open for business or not
2. DisplayLocation() - Will allow users to see the theater's physical address

Movie:

1. DisplayMovie() - Will display movie information: runtime, genre, description, etc.

Hall:

1. DisplayDetail() - Will let customers know where their movie will be played

Seat:

1. DisplayAvailability() - Will determine if a seat has been reserved

TicketCounter:

1. DisplayTicket() - Displays ticket information like: movie, time, hall, seat
2. BookTicket() - peeka boo-k ticket :D

Customer:

1. DisplayCustomer() -

Employee:

1. DisplayEmp() -

TechnicalStaff:

1. DisplayManager() -

Admin/Manager:

1. DisplayTechStaff() -

9. Architecture Diagram:

Waterfall Model

