Theater Ticketing System

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CS 250
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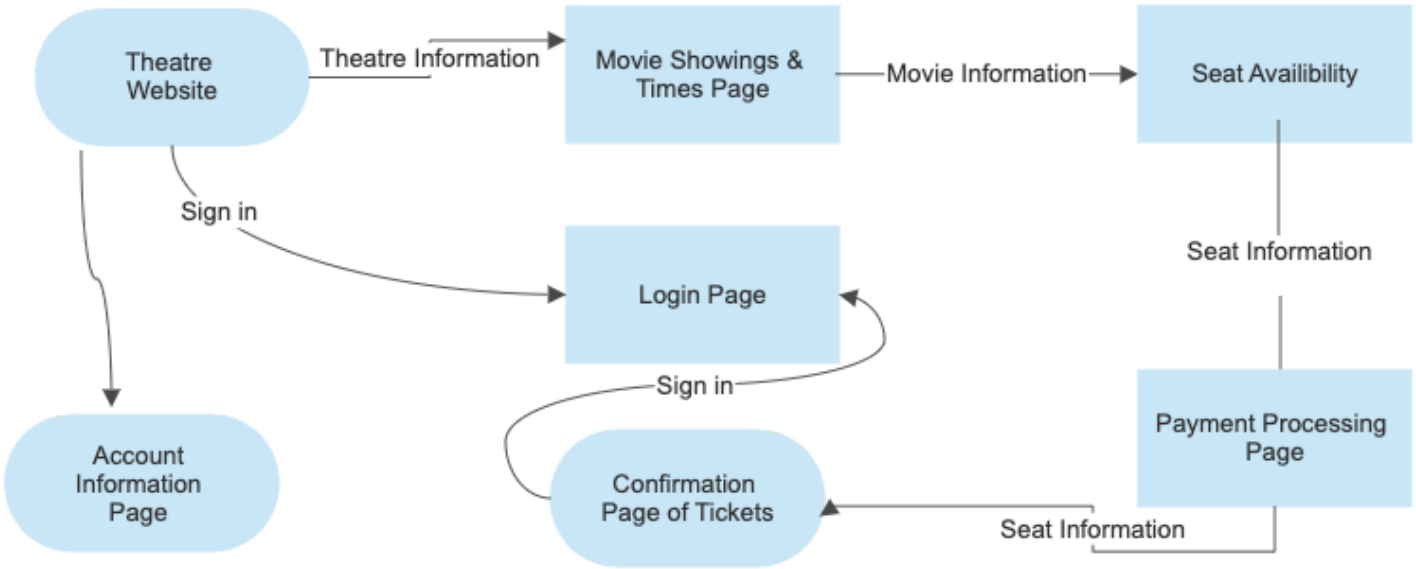
System Description

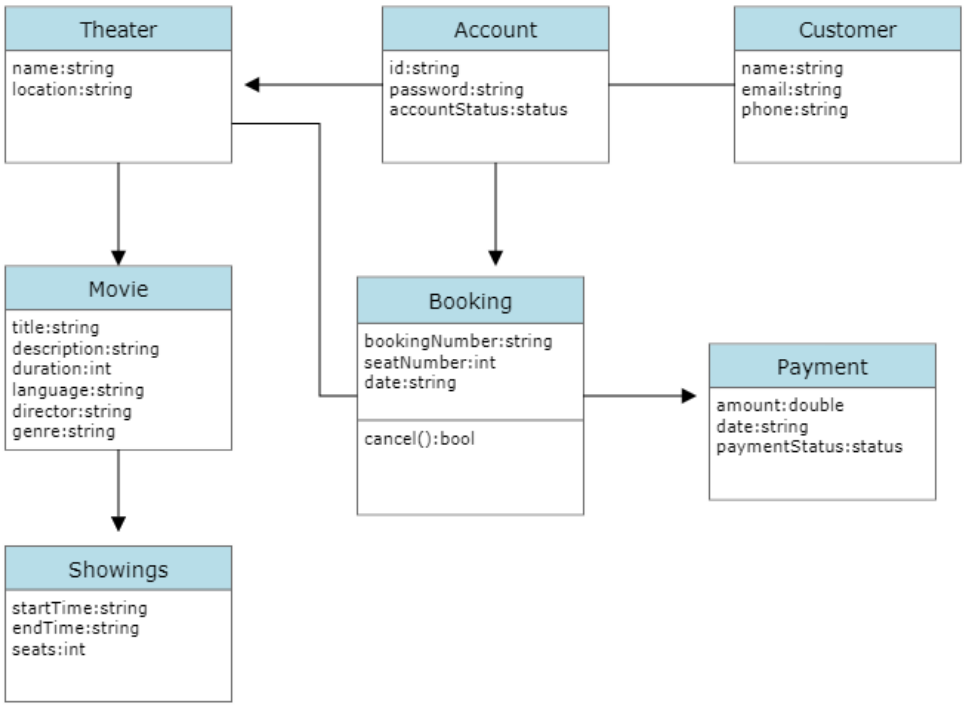
The theater ticketing system is a browser application that we can use while online. The intention for this system is to allow users to buy movie tickets. This system will have all of the necessary information of a movie theater like showings, times, availability, and prices. The website will allow users to choose what category they fall into like child, adult, senior, military, etc. Upon choosing this it will change the prices of the movie tickets. The user will be able to choose how many tickets they want to purchase, where the seats will be, and what movie they want to watch. After all of this information is selected, they will be able to pay by entering in their information and will lead them into a confirmation of their purchase. Users will be able to sign in or make an account in congruence with the website for rewards and points. Since this system will have to be able to take in a lot of information and has to be able to handle millions of users, the tickets must not repeat. The budget for this system should be thousands of dollars.

Software Architecture Overview

Architectural Diagram:



UML Class Diagram:



Description of Diagrams

Architecture Diagram:

This architecture diagram that is provided is what we made for the Theatre Ticketing System. In this diagram we provided what it will look like when the user interacts with the website. The main part of this system is the website which controls all of the functions of buying a movie ticket. When clicking on the theater website, you will have the option of looking at all of the available movie showings and times. You will also have an option to sign in or make an account. When you have selected a movie and time you will get redirected to the seating page which will show the available seats and how many seats you would like. After selecting your seats, you will be able to enter your information to pay for the tickets you have chosen. Lastly, you will go to the final page which is the confirmation of your tickets. You will have the option to sign into your account or create an account. There will also be an account information page where you have access to update or complete any changes to your account in the theater website.

Description of UML Classes

Theater Class: This class stores the name and location of the theater

- **Name:** Stores the name of the theater in a string
- **Location:** Stores the location of the theater in a string

Movie Class: This class stores attributes of the movie in order to find what the customer is looking for

- **Title:** Stores the name of the title of the movie in a string
- **Description:** Stores the description of all movies in a string
- **Duration:** Stores the length of the movie in minutes in an int
- **Language:** Stores what language the movie is in in a string
- **Director:** Stores who directed the movie in a string

Showings Class: This class stores attributes of the showtimes and seats

- **startTime:** Stores the start time of the movie in a string
- **endTime:** Stores the end time of the movie in a string
- **Seats:** Stores how many seats there are in a int value

Account Class: This class stores the attributes of the customer's account

- **ID:** Stores the ID of the user in a string
- **Password:** Stores the password of the user account in a string
- **AccountStatus:** Checks status of the account

Customer Class: This class stores the attributes of the customer

- **Name:** Stores the name of the customer in a string
- **Email:** Stores the email address of the user in a string
- **Phone:** Stores the phone number of the user in a string

Booking Class: This class stores the booking attributes that the users put in

- **BookingNumber:** Stores the code of the unique booking number for the customer in a string
- **SeatNumber:** Stores the seat number that customer has selected in a int value
- **Date:** Stores the date of booking in a string

Payment Class: This class stores the details of the payment made by the customer

- **Amount:** Stores the payment amount in a double value
- **Date:** Stores the date of the purchase in a string
- **PaymentStatus:** Stores the status of the payment to see if it is successful or not

Description of Attributes and Operation

The theater class stores the name and location of the theater. Such classes include the movie class which stores attributes of the movie in order to find what the customer is looking for. The operation of the system will include many different user interactions depending on what the user wants. Functions like showings will be used throughout the program to see the available movie showtimes and seats. There will be functional requirements such as accounts class which will let the user choose to make any changes to their account. Throughout our software we will be implementing strings, booleans, integers and other data types that will be stored in the various classes.

Development Plan and Timeline

I. Partitioning of Tasks

Steven Gervacio- Github repository, Architectural Diagram, Description

Jason Lam- UML Class Diagram, Description

Tri Pham- Overview of System, Description

II. Team Member Responsibilities

Steven- Layout of System, Description of Attributes and Operations

Jason Lam- Description of Classes, Diagrams

Tri Pham- Description of Overview