(Note: delete all highlighted things later)

Title page

- Software title
- Team members

System Description

- Brief overview of system

Software Architecture Overview

- Architectural diagram of all major components
- UML Class Diagram
- Description of classes
- Description of attributes
- Description of operations
- descriptions should be detailed and specify datatypes, function interfaces, parameters, etc..
- **NOTE: There's a difference between SRS document list of design diagrams required to include and those required to submit in the Rubric. Please, follow the Rubric's design diagram requirements.**

Development plan and timeline

- Partitioning of tasks
- Team member responsibilities

<MovieMania>

Software Design Specification

<Version 1>

<7/22/2025>

<Group 1#>
<Suber Ebrahim and Deryn Cabana>

Prepared for
CS 250- Introduction to Software Systems
Instructor: Gus Hanna, Ph.D.
Summer 2025

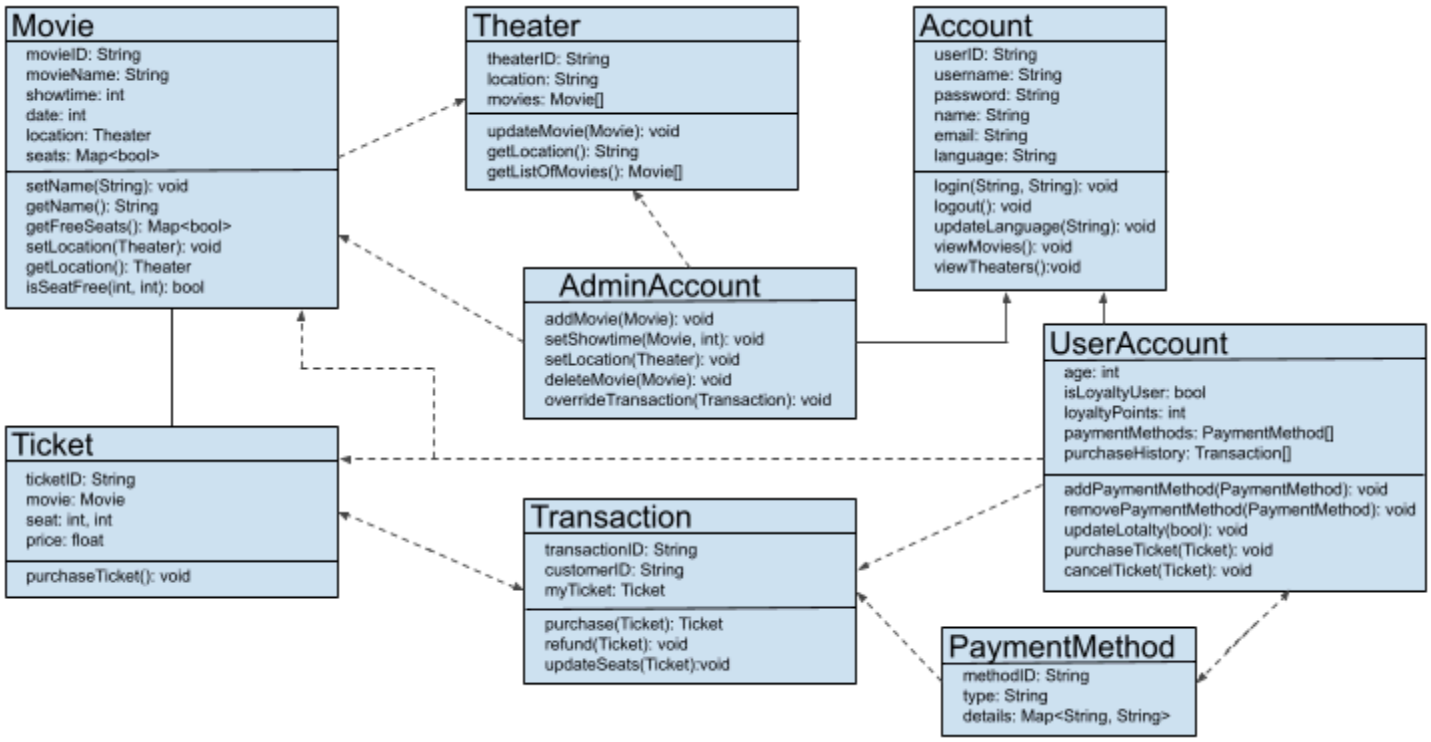
1. System Description

I'll work on this section after we finish 2.1 and 2.2 (makes it easier).
- Deryn

2. Software Architecture Overview

2.1 UML Diagram

I'll work on this section (2.1) as a whole later.
- Deryn



2.1.1 Class: Movie

Purpose: Represents an individual film with associated showtime, seating, and other metadata.
Attributes:
movieID: String - Unique identifier for the movie
movieName: String - Title of the movie
showtime: int - Start time of the movie in a simplified integer format
date: int - Date of the movie showing in an integer format
location: Theater - The theater location where the movie is being shown
seats: Map<bool> - Data structure representing seat availability, with seat ID mapped to availability

Operations:
setName(String): void - Updates the movie title
getName(): String - Retrieves the movie title
getFreeSeats(): Map<bool> - Returns a map of available seats
setLocation(Theater): void - Updates the theater the movie is showing at
getLocation(): Theater - Retrieves the movie location
isSeatFree(int,int): bool - Checks is a specific seat is available, by row and column

2.1.2 Class: Theater

Purpose: Represents a physical theater, with multiple movies playing
Attributes:
theaterID: String - Unique identifier for the movie
movies: Movie[]

2.1.3 Description of Operations

2.2 SWA Diagram

Not really sure what this is supposed to be? It's on the rubric for the assignment though (as a "Software Architecture diagram of software design"), and the professor said it was necessary when I asked. An "Explanation of SWA Diagram" is also needed, likewise from the rubric.
- Deryn
{insert image here}

3. Development Plan & Timeline

- Week 1 Collect information and resources for SRS documents.
- Week 2 - 5 Core backend/foundational requirements,
- Week 5 - 7 User authentication and initial frontend design.
- Week 8 Debug and test any bugs with user log in.
- Week 9 Movie showcasing system and general user interface.
- Week 10 Work on payment system.
- Week 11-12 Comprehensive system testing and security test
- Week 13 Add misc features such as holiday sales, non recurring discounts etc.

3.1 Partitioning of Tasks

1. Khalid Ayman, Backend developer.
2. Marcus Smith, Frontend developer.

3. Kawhi Leonard, System Security.
4. Kent Bazemore, Visual Designer

Task

	Khalid	**Marcus**	**Kawhi**	**Kent**
Week 1	**Collect info for srs**	**Assists Khalid and Kent with UI**	**Collect info for srs**	**Works on initial mock ups**
Week 2-5	**Work on core functional requirements**	**Begins work on frontend framework**	**Works closely with khalid on foundational s**	
Week 5-7				
Week 8				
Week 9				
Week 10				
Week 11-12				
Week 13				

3.2 Team Member Responsibilities