

SOFE 3650U: Software Design & Architecture

Final Project Proposal

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Introduction

Our proposed idea is a Movie Ticket Booking System called StarLux Cinemas. This system provides clients with an easy and accessible way to book tickets for cinemas and many theatre locations in Ontario. The user will be required to login to the system and book their preferred tickets with their credit card. Instead of having to wait in long queues and arrive early just to purchase tickets in-person, this online platform will serve as an efficient alternative, available at all hours of the day. The purpose of this project is to deliver a web-based working prototype of a project of our choice. The aim for this software product is to reduce latency and complexity of in-person ticket purchasing by optimizing the efficiency of technology. We will be incorporating the design patterns and architectural concepts learned in the Software Design and Architecture course into our proposed project.

Functional & Non-Functional Requirements

| Functional Requirement | Description |
|--------------------------------|---|
| 1. Date Selection | Allows the user to select movie dates that have been set to be available so that the user can choose the day they want to watch the movie |
| 2. Login/Signup User Interface | Allows the user to login/sign up with their email address and password so that they can book tickets from their account |
| 3. Seat Selection | Provides a seat selection layout for the users so that they can choose seats as per their preference for the specific movie |
| 4. Checkout User Interface | Allows users to select the type and quantity of tickets they want so that they can reserve tickets to the show of their choice |
| 5. Payment | Users should have multiple payment options so that they can choose their preferred method of payment |

| Non-Functional Requirement | Description |
|-------------------------------|---|
| 1. Password Security | An encryption algorithm is created so that customers' passwords are encrypted before being stored in the database (for safety purposes) |
| 2. System Availability | The movies in the system will be available 24/7 so customers can access the website and book tickets whenever they like |
| 3. Confirmation Response Time | The booking confirmation email should be sent to the customer in <1 min so that they can see whether their purchase was successful |