Updated Movie Ticket Booking System

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INFO-C 451:
System Implementation

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Customer problem statements and system requirements

Problem Statement:

The process of booking movie tickets can often be quite challenging for customers, with issues like long wait times, limited information access, and trouble securing their desired seats. Many current systems are either outdated or too complicated, which can lead to frustration.This project seeks to tackle these issues by developing a user-friendly online platform that enables customers to effortlessly browse movies, choose showtimes, and book tickets. The goal is to simplify the booking process, offer real-and real time seat availability. By making the process more efficient, we can potentially increase ticket sales for theaters, and enhance the customer's experience.

System Requirements:

Users will be able to:

-Select film

- Access detailed information about each film, including ratings and reviews.
- Select their preferred seats and check real-time availability.
- Complete transactions using multiple payment options.

Functional requirement specification

Functionality:

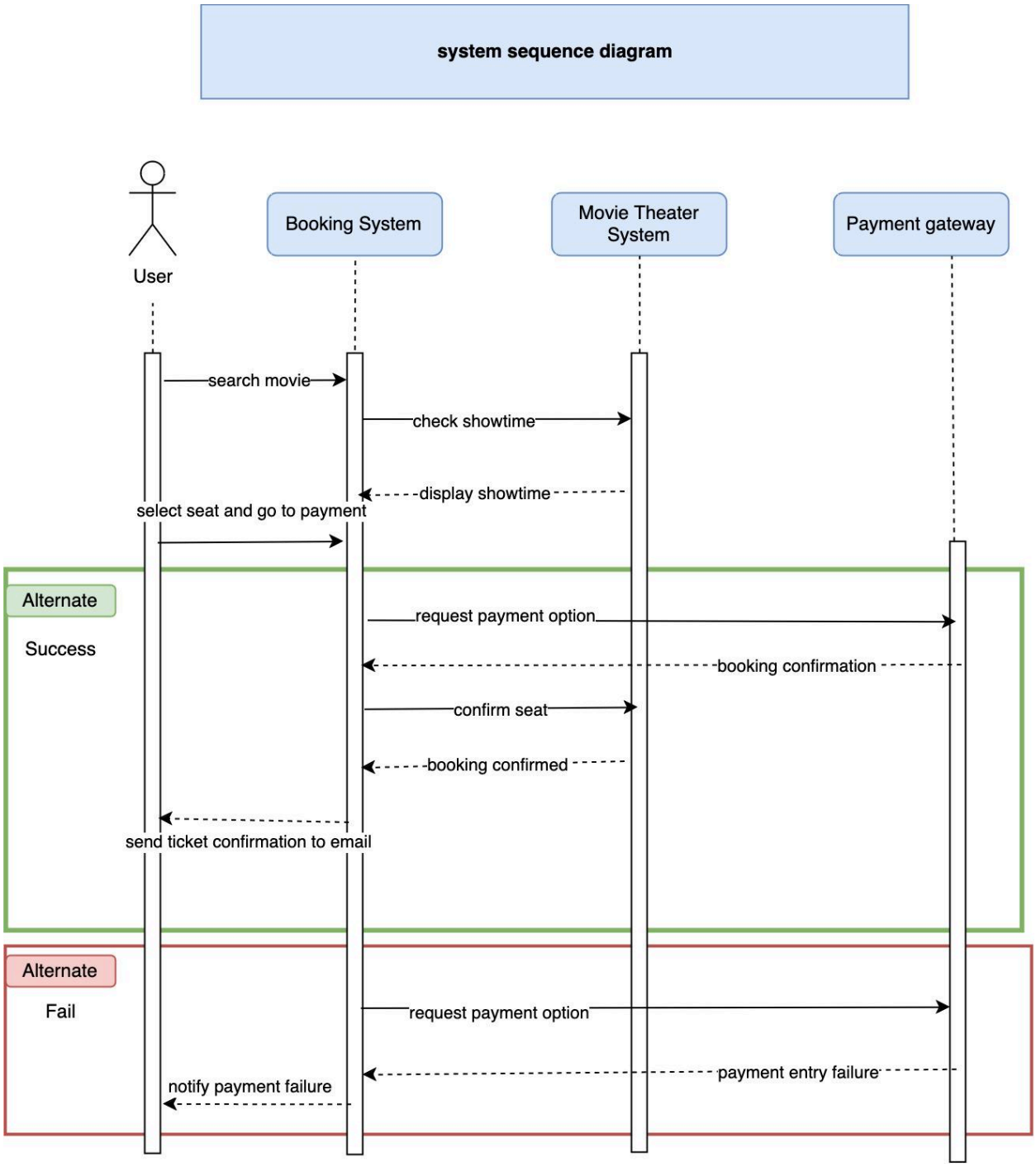
-Select available films and showtimes.

-Choose seats

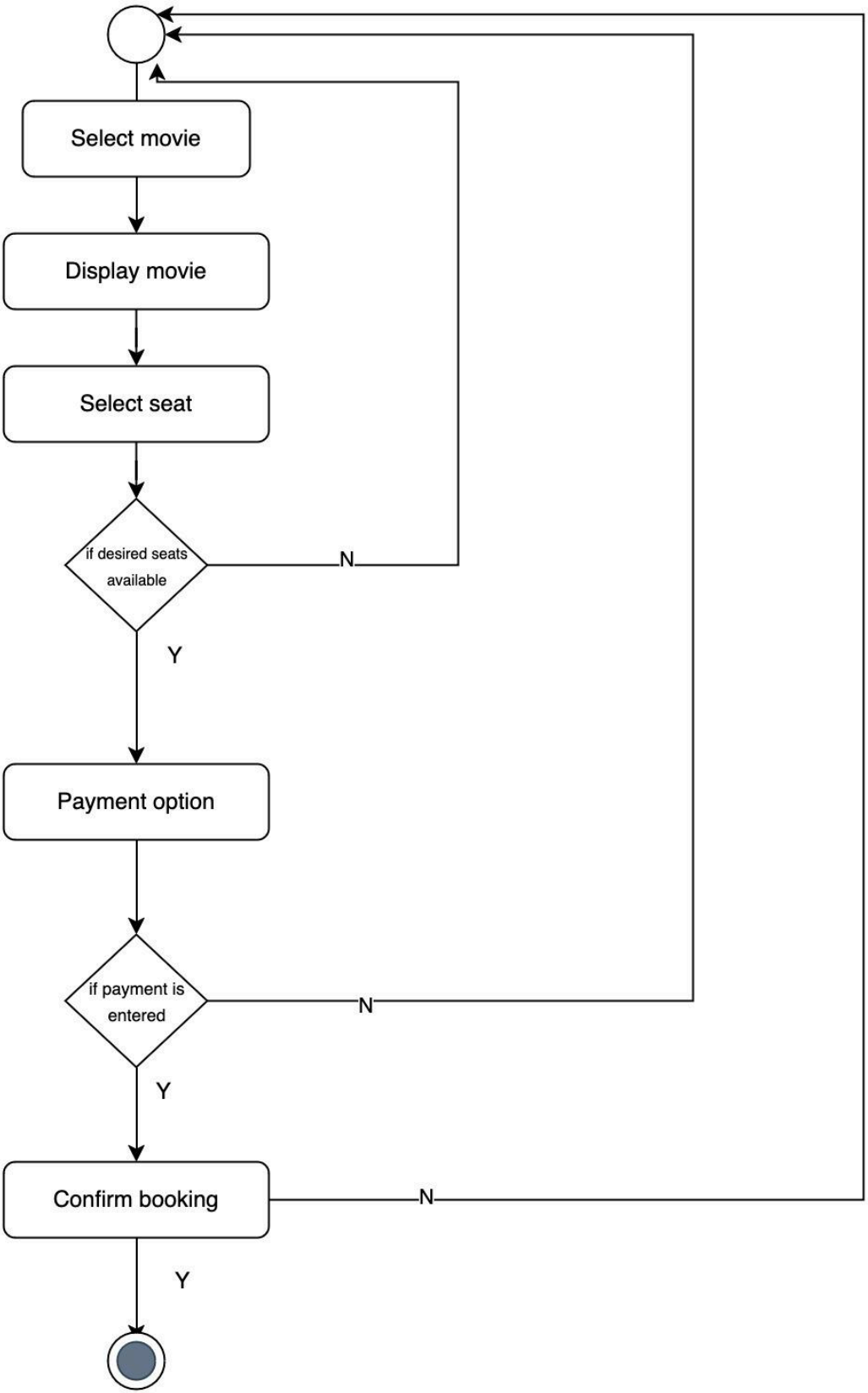
-Select online payments.

-Receive electronic tickets through email

System sequence diagram



Movie ticket booking system
Activity Diagram



User interface specification

The key components of the user interface:

Homepage: This will display available movies, next available showtime, seats, method of payment and email entry for booking.

Movies: drop-down menu of the available movies. This will also show detailed information about the selected movie.

Seat selection: interactive seating layout for users to choose their preferred seats and available seats are highlighted.

Payment: secure payment options and confirmation of booking

Confirmation: display booking confirmation and message that e-ticket is sent to email.

Traceability matrix

Users should be able to book tickets for the movie of their choosing :

Requirements

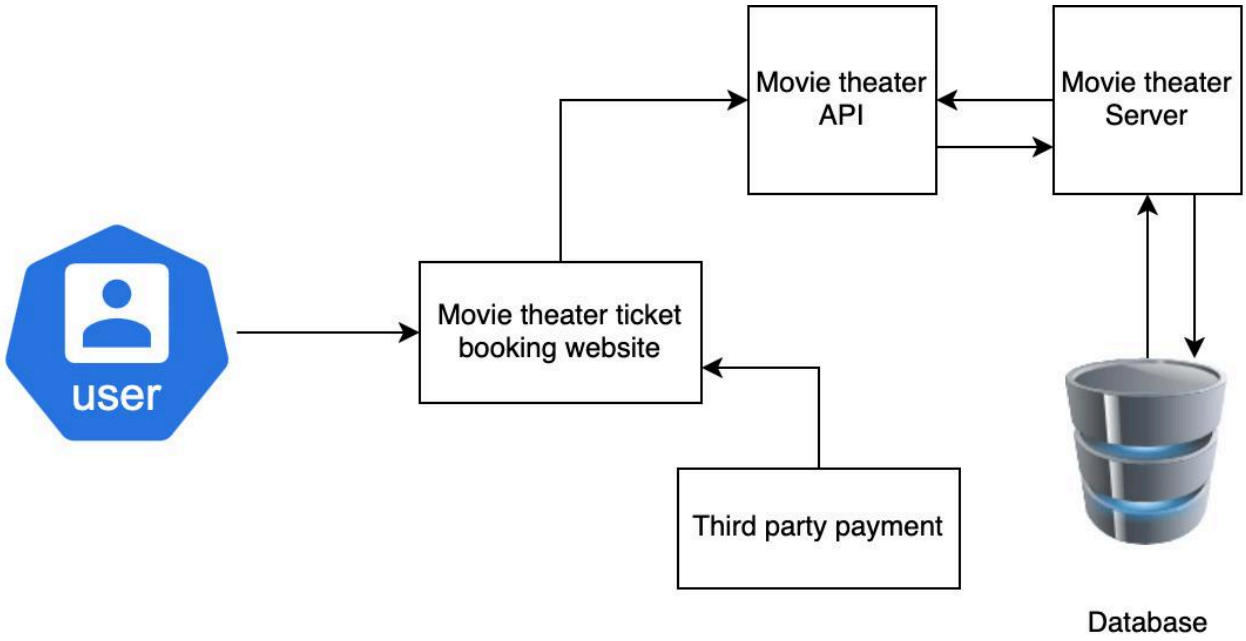
Select a movie	Applicable to all	Functional	
View description	Applicable to all	Functional	
Choose Seat	Applicable to all	Functional	
View seat selection	Applicable to all	Functional	
Input payment info	Applicable to all	Functional	
Submit payment	Applicable to all	Partial	
Receive confirmation	Applicable to all	Partial	
Collect and store data	Analyst and Developer	Partial	

Traceability matrix (continued)

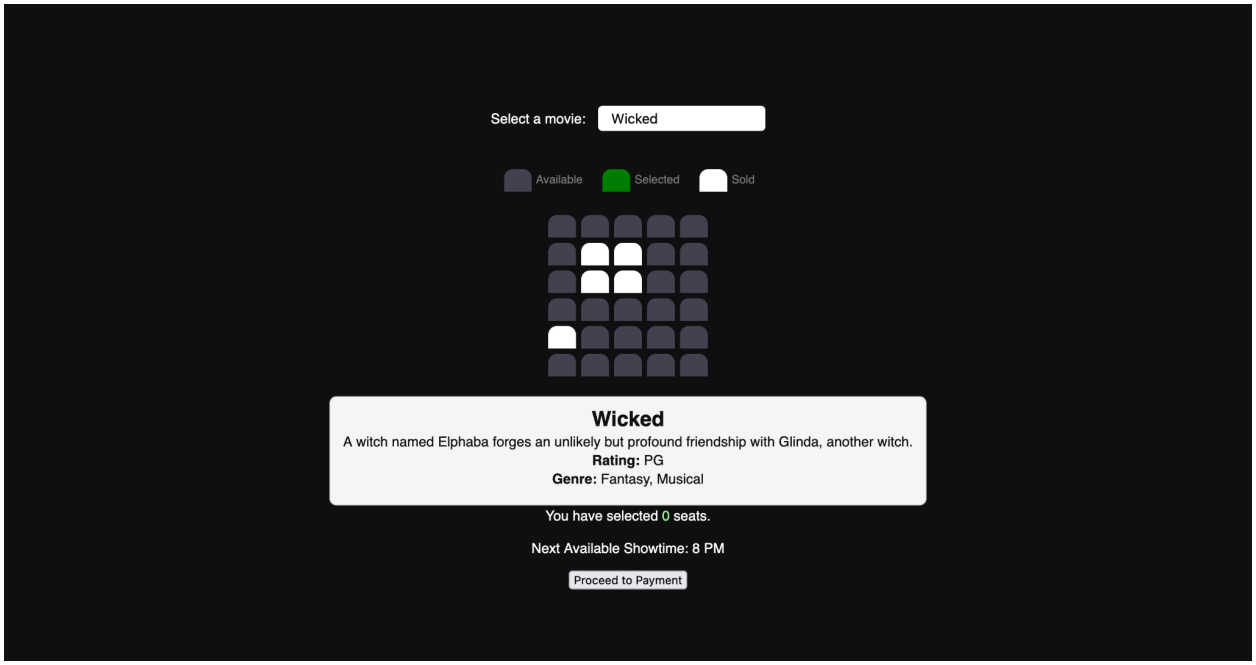
Testing

User can select movie	Pass
User can select available seats	Pass
Sold seats prevents user from clicking	Pass
Selected seats are highlighted	Pass
Each movie has description	Pass
Showtime is visible	Pass
User can select showtime	*Fail*
User has the option to choose desired time	*Fail*
User can input info	Pass
Name	Pass
Email	Pass
Login	*Fail*
Payment method is visible	Pass
User is redirected to payment gateway	*Fail*
Confirmation	Pass
User receives confirmation via email	*Fail*
Data is collected	*Partial. Yes via demo terminal not sql*
Storage database and management	*Sql created but not implemented*

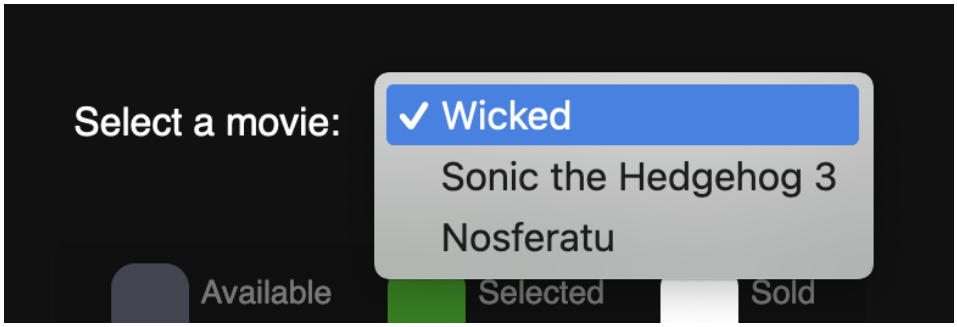
System architecture/system design



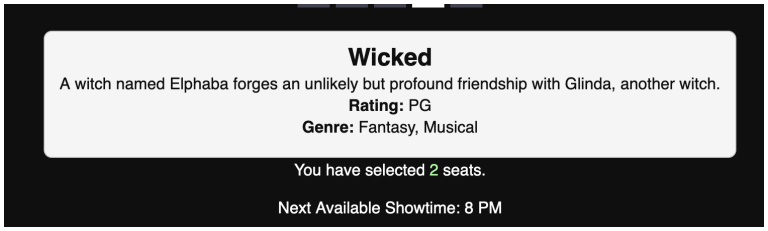
User interface design and implementation, design of tests



Simple, straightforward layout

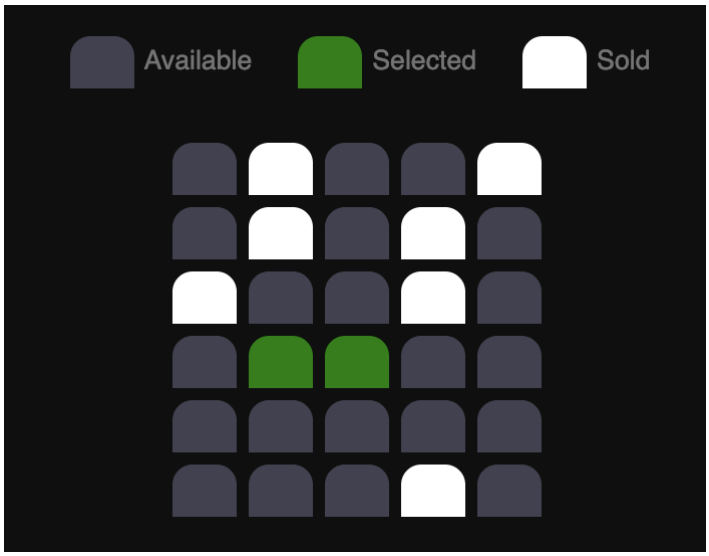


Movie selection dropdown

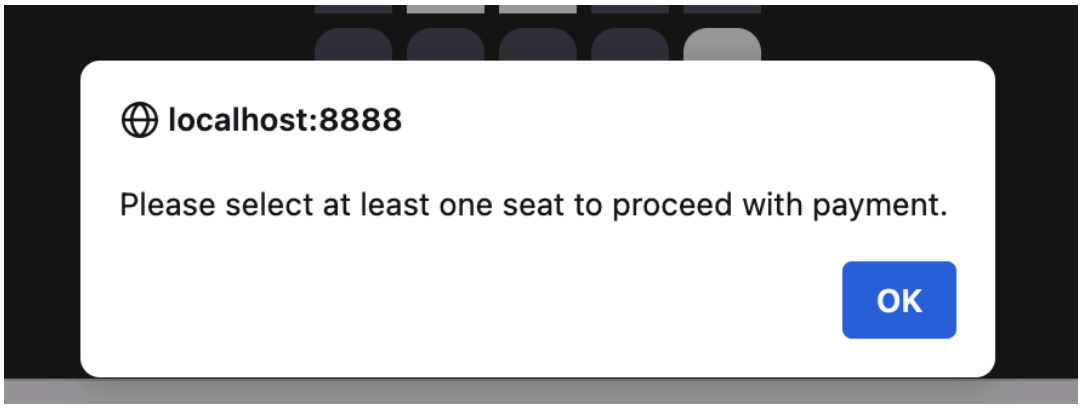


Description

Interactive seating



Alert popup if user attempts to proceed without choosing seats



Project Plan

Software requirements:
-A web application to serve as the user interface.

Hardware requirements:
-A server to host the application.

Network requirements:
-internet connection
-protocols to safeguard user info.

Development approach:
Frameworks has to focus on creating a user friendly interface
Technology stack selection.

Steps:

Design phase. (Here we develop wireframes and design the demo user interface)
Implementation phase (Build the components)
Testing phases (test for functionality)
Deployment phase (launch!)

Ref.
This documentation references the project proposal from earlier in the semester.