ONLINE MOVIE TICKET BOOKING SYSTEM

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By

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Abstract

The Online Movie Ticket Booking System is a GUI-based desktop application developed using Java Swing and MySQL. It enables customers to book movie tickets efficiently without visiting theatres physically. The system integrates a user-friendly interface for booking and a relational database for secure data management. Customers can view movie information, select seats, and confirm their bookings. The application demonstrates database connectivity using JDBC, ensuring smooth data insertion and retrieval. This project aims to provide a simple, effective, and interactive ticket booking experience through automation of traditional booking methods

Contents

1. Introduction

The Online Movie Ticket Booking System is designed to simplify the process of reserving movie tickets through a computerized interface. It eliminates the need for manual entries and paperwork, reducing human errors and improving efficiency. The application allows customers to book tickets, view movie details, and maintain booking records. The backend is implemented in MySQL, ensuring data consistency and integrity, while Java Swing provides a cross-platform graphical interface. This project also serves as a practical implementation of database connectivity concepts in software development.

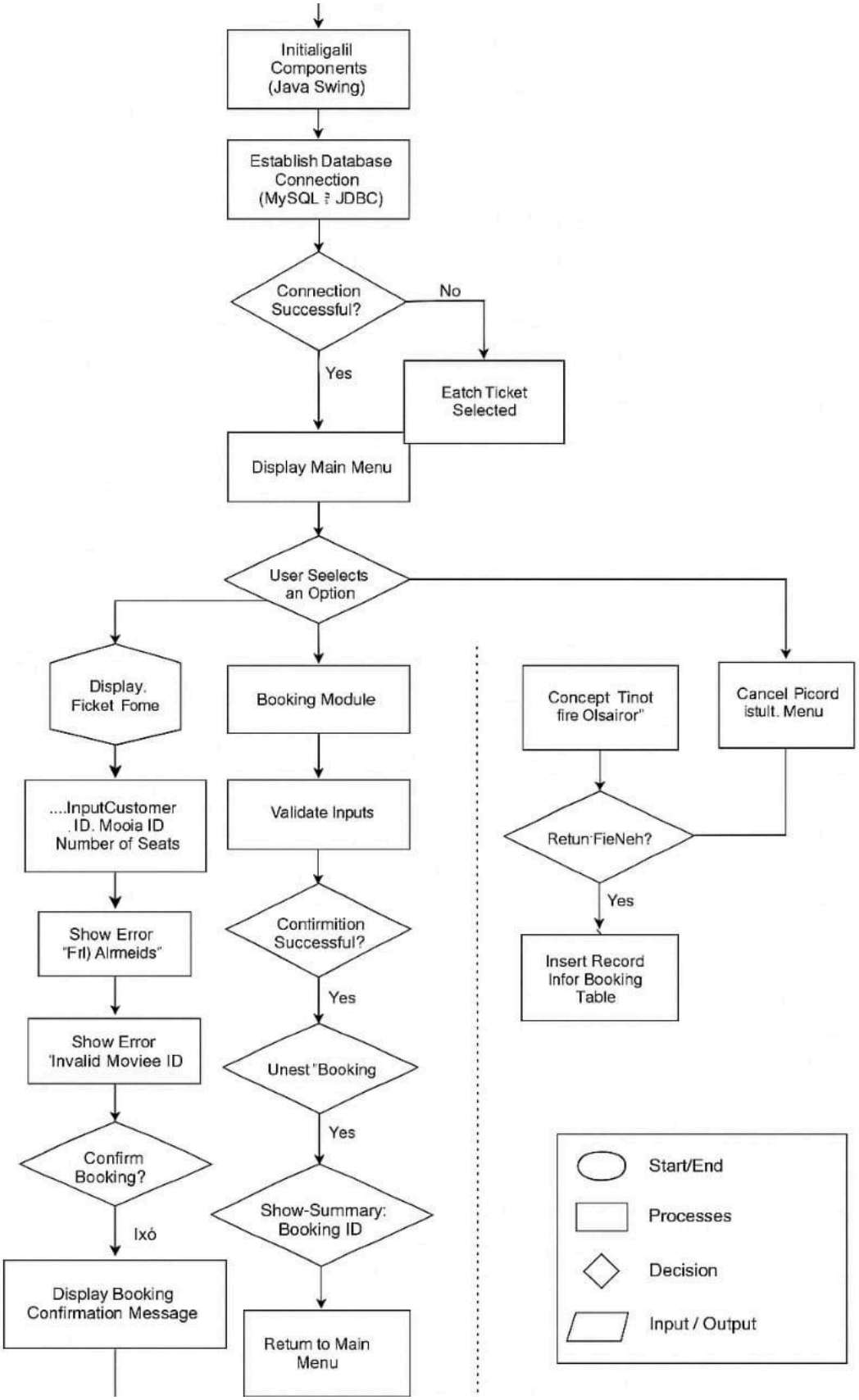
2. Problem Statement

The manual process of booking movie tickets often leads to long queues, data inconsistency, and lack of accessibility. Customers face challenges in checking movie availability and confirming reservations quickly. To overcome these limitations, a GUI-based application is required that connects to a centralized database, allowing users to book, view, and manage tickets easily while maintaining secure and accurate records.

3. Objective

- To design a user-friendly interface for booking movie tickets.
- To connect the Java application with a MySQL database using JDBC.
- To enable insertion, viewing, and management of booking details.
- To maintain accurate and real-time booking data.
- To demonstrate CRUD (Create, Read, Update, Delete) operations through GUI.
- To ensure reliability, efficiency, and data security

4.Proposed Design



5.Implementation

Frontend: Java Swing (GUI Components)
Backend Database: MySQL
Connector: JDBC (MySQL Connector/J)

Key Implementation Steps:

1. Establish database connection using JDBC.
2. Create tables `Customer`, `Movie`, `Theatre`, `Booking`, and `Hosts`.
3. Develop GUI components (Labels, TextFields, Buttons).
4. Implement the `bookTicket()` function to insert booking data.
5. Handle exceptions for invalid inputs or foreign key errors.
6. Display confirmation messages using JOptionPane.

Core Code Snippet:

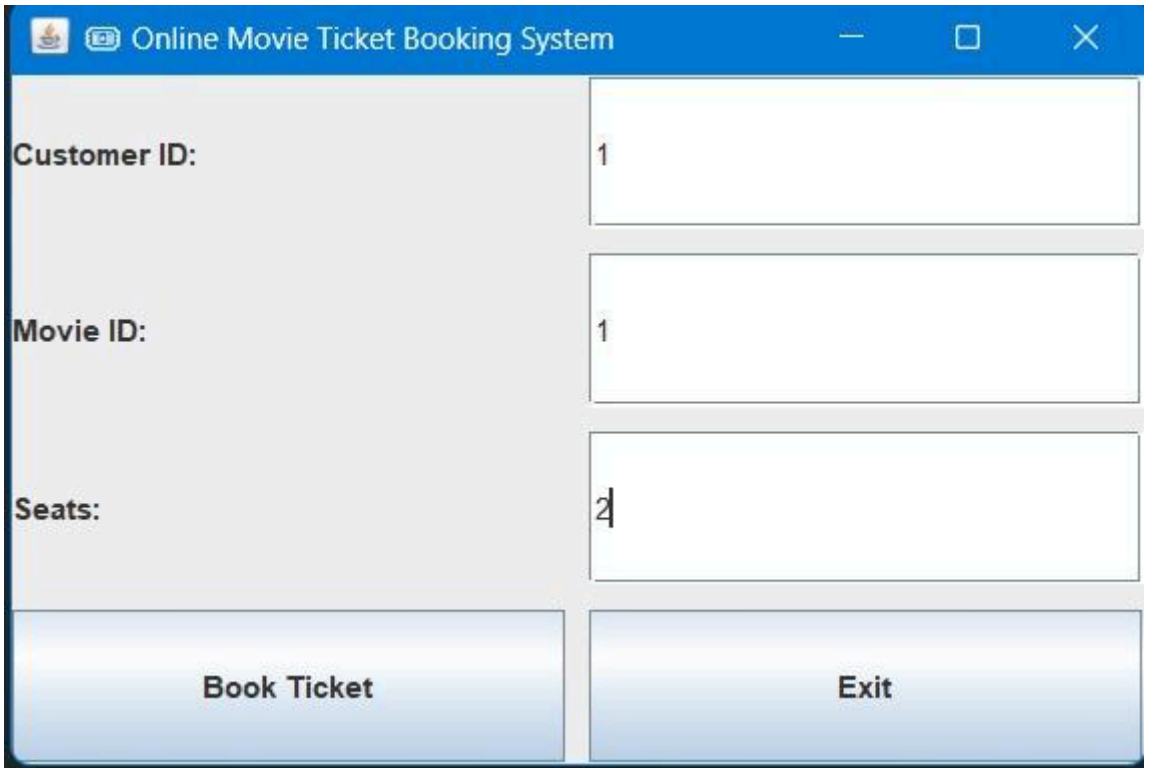
```
String query = "INSERT INTO Booking (Seats, Customer_ID, Movie_ID)
VALUES (?, ?, ?)";
pst = con.prepareStatement(query);
pst.setInt(1, Integer.parseInt(seats));
pst.setInt(2, Integer.parseInt(cid));
pst.setInt(3, Integer.parseInt(mid));
pst.executeUpdate();
```

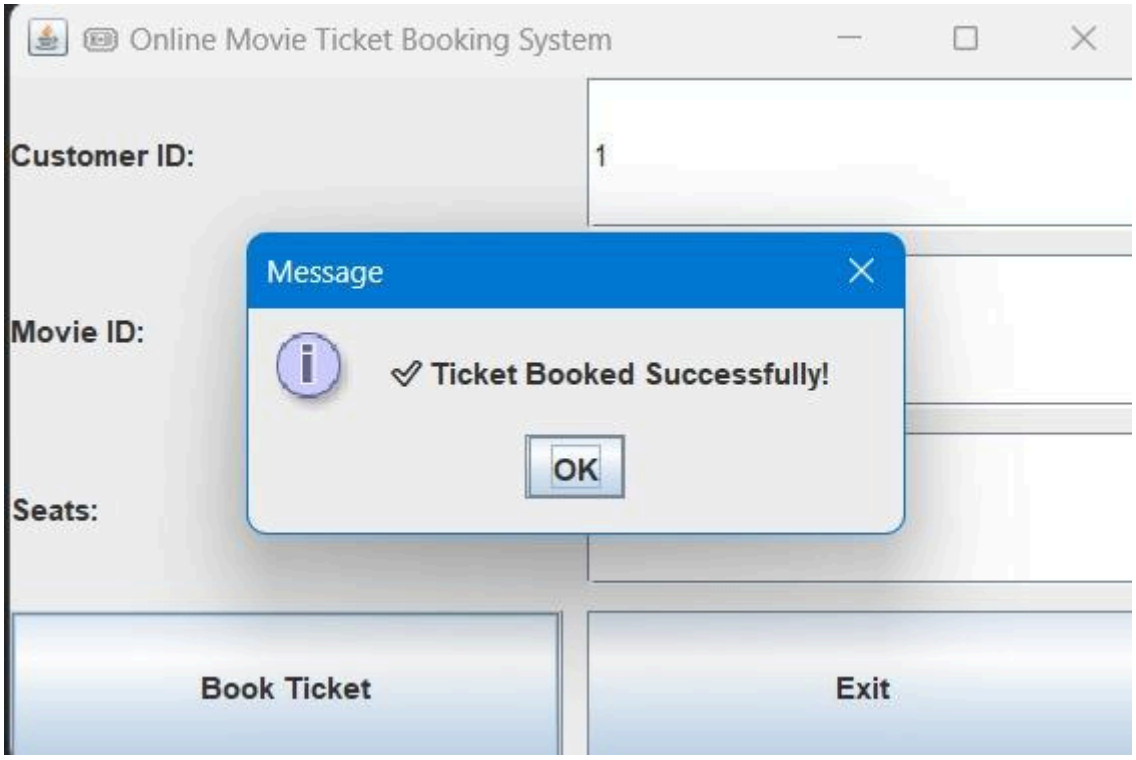
6. Results and Analysis

After executing the application:

- The GUI loads successfully in IntelliJ.
- On entering valid Customer ID, Movie ID, and Seats, the booking is recorded in the database.
- A message box confirms successful booking.
- Data verification in MySQL shows proper insertion in the `Booking` table.

This proves successful integration between Java Swing frontend and MySQL backend. The system can be expanded for admin management and viewing booking reports.





SELECT * FROM Booking;

7.Conclusion

The Online Movie Ticket Booking System was successfully developed and executed using Java Swing and MySQL. It demonstrates how GUI-based applications can interact with databases for real-world use cases. The project achieves automation of ticket booking, reduces manual workload, and ensures accuracy and efficiency. The system can be further enhanced by adding features like seat selection, login authentication, and payment gateway integration.

8. References

- Oracle Java Documentation – https://docs.oracle.com/javase/
- MySQL Official Documentation – https://dev.mysql.com/doc/
- JDBC API Guide – https://docs.oracle.com/javase/8/docs/technotes/guides/jdbc/
- TutorialsPoint Java Swing & JDBC Examples