Movie Ticket Booking System - Project Report

1. Introduction
This project is a Movie Ticket Booking System developed using Python and Object-Oriented Programming (OOP). It simulates real-world movie booking operations such as viewing shows, checking seat availability, and booking seats.

2. Objectives
- To implement OOP concepts in Python.
- To design a modular and scalable booking system.
- To simulate real-world movie ticket booking functionality.

3. Technologies Used
- Python 3
- Object-Oriented Programming (classes, objects, methods, encapsulation)

4. System Features
- View available movies and showtimes
- Check seat availability
- Book seats with overbooking prevention
- Maintain show data using class attributes

5. System Design
The project contains classes such as:
- **Show**: Stores show title, time, total seats, booked seats.
- **Theater / Booking System**: Manages multiple shows and user interactions.

6. Execution
The program can be executed using:
python3 main.py

7. Future Enhancements
- Adding GUI using Tkinter / PyQt
- Adding database support
- Implementing online payment gateway
- Admin panel to manage shows

8. Conclusion
The Movie Ticket Booking System demonstrates the power of OOP in organizing real-world applications with clarity, modularity, and extensibility.