

# MOVIE TICKET BOOKING APP FOR APP DEVELOPMENT 2

## Author

Aditya R.

21f1006862

21f1006862@ds.study.iitm.ac.in

## Description

The movie ticket booking app developed using Flask and Vue.js aims to provide users with a seamless platform to browse, select, and book movie tickets. Users can view available movies, showtimes, and theatres, and then proceed to book tickets for their desired shows. The app also generates monthly reports of user ticket bookings and sends them via email.

## Technologies used

- Flask: A micro web framework in Python for building the backend.
- Vue.js: A JavaScript framework for building interactive user interfaces.
- SQLAlchemy: A Python SQL toolkit and Object-Relational Mapping (ORM) library for managing database operations.
- Flask-JWT-Extended: An extension for Flask that provides JSON Web Token (JWT) authentication support.
- SMTP: Simple Mail Transfer Protocol for sending emails.
- Redis: An in-memory data store used for caching to improve data retrieval speed.
- Celery: A distributed task queue system that manages background jobs.
- Axios: A JavaScript library for making asynchronous HTTP requests from the frontend.

## DB Schema Design



## API Design

API endpoints are created for user registration, login, movie listing, showtimes, ticket booking, and monthly report generation. These endpoints are implemented using Flask's `@app.route` decorator and handle various HTTP methods (GET, POST, etc.).

## Architecture and Features

The project follows a model-view-controller (MVC) architecture. Controllers handle routing and logic, templates are managed by Vue.js for dynamic UI updates, and models interact with the database using SQLAlchemy. Default features include user authentication, movie listing, showtime selection, and ticket booking. Additional features include generating monthly reports and sending the reports via email. The app's organized structure and feature-rich design ensure a user-friendly movie ticket booking experience.

## Video

<https://drive.google.com/file/d/1DjohVqfHfbGuGTD6lHSfjWtTdzg0xtrj/view?usp=sharing>