

Author

NISHANTH SAMSON I

21F1005016

21f1005016@ds.study.iitm.ac.in

My name is Nishanth Samson, I have designed the ticket-show app for my MAD 2 project.

Description

The ticketshow app is a multi-user app used for booking movie tickets, users can book tickets and view their bookings. The admin of the app manages all theatres, shows and movies that are displayed within the app and can also view the stats of user bookings.

Technologies used

Flask – for the API

Flask-sqlalchemy – for Database management

Flask-security – for user login and authentication

Werkzeug – for handling image uploads

Flask-bcrypt – for hashing user passwords

Celery – for job processing

Flask-caching – for setting up cache

Smtplib – for sending reminders through email

Pandas – for data formatting and pre-processing

Matplotlib – for visualizing data to display in admin dashboard

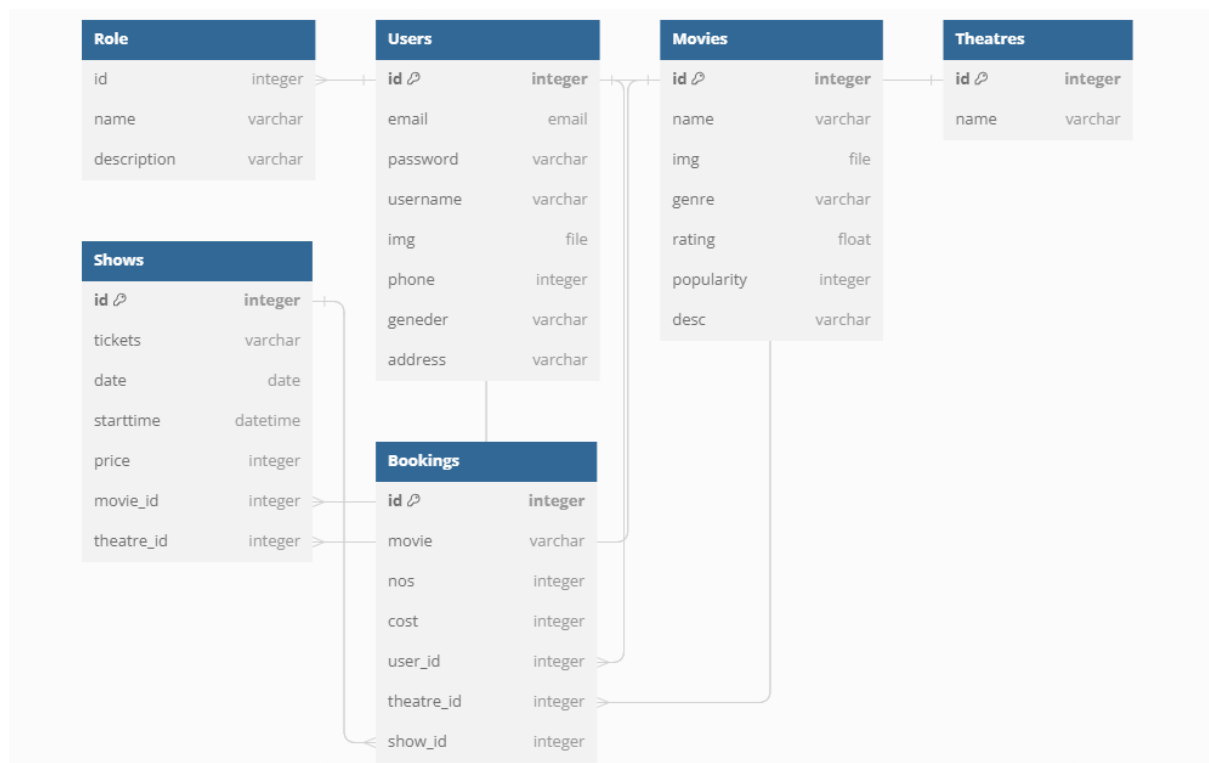
Vue.js – for rendering the UI

Bootstrap – for aesthetics

DB Schema Design

The database structure for the ticketshow app consists of 6 tables to store data efficiently.

Tables	Constraints
Users	email, password – NOT NULL
Roles	-
Movies	name – NOT NULL
Theatres	name – NOT NULL
Shows	-
Bookings	-



API Design

The app has several API endpoints that allow the client to communicate with the backend. The movie and theatre APIs are designed to fetch data from the SQLite database. The book_tickets API allows users to book tickets for a specific show and updates the DB. The update_profile and profile_pic API allows users to edit and customize their profile. The my_bookings API fetches and returns user movie bookings. There are also several APIs for the purpose of adding, removing and editing the details of Theatres, movies and shows. The app also has several routes for performing tasks efficiently.

Architecture and Features

The ticketshow app uses flask for the API and Vue.js for the UI, the template files are stored Inside the 'templates' folder in the root directory. The Vue.js file 'main.js' is store inside the 'static' folder in the root directory.

The app features a user-friendly interface and uses bootstrap for the UI, it includes all basic features that are present in a movie ticket booking system and also includes additional features such as a fully customizable user profile, light and dark theme modes and the ability to send daily reminders and monthly newsletters to the users of the application.

Video

<https://drive.google.com/file/d/1T6VfUjT2e5-4-luB9xum1ROySdtq0frh/view?usp=sharing>