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Description

Ticket Booking is a web-based application that allows users to browse, select and book tickets online. Users can view the available shows, showtimes, prices and seats in different venues. They can also filter movies by genre, rating, and location. Users can also view their booking history and rate the movies they watched. Ticket Booking Application is a user-friendly and convenient way to book tickets from the comfort of your home.

Technologies Used

The following technologies were used for implementation:

1. flask: used for designing the overall application
2. flask-sqlalchemy: used for the designing the database
3. flask-restful: used for designing the API
4. jinja2: used for templating
5. JS: used for booking timers

DB Schema Design

Users Table	
Attribute	Comments
user_id	Integer, Autoincrement, Primary key
name	String, indexed, unique
password	String

Admin Table	
Attribute	Comments
admin_id	Integer, Autoincrement, Primary key
name	String, indexed, unique
password	String

Venues Table	
Attribute	Comments
venue_id	Integer, indexed, Autoincrement, Primary key
venue_name	String, Indexed, Unique
venue_place	String
venue_city	String
venue_capacity	Integer

Bookings Table	
Attribute	Comments
booking_id	Integer, Primary Key
show_id	Integer, Indexed
venue_id	Integer, Indexed
user_id	Integer, Indexed
quantity	Integer
customer_rating	Integer

Shows Table	
Attribute	Comments
show_id	Integer, Autoincrement, Primary key
show_name	String, indexed
show_venue_id	Integer
show_tags	String, indexed
show_price	Integer
show_rating	Integer
show_start	String
show_end	String
booked	Integer

API Design

The API was implemented using Flask's extension called flask-restful.

There are two parts to the API:

1. Venue API: Implementing CRUD for a venue resource given a venue name.
2. Shows API: Implementing CRUD for a show given a show_id.

Venue API	
GET	/api/venue/{venue_name}
POST	/api/venue
PUT	/api/venue/{venue_name}
DEL	/api/venue/{venue_name}
Shows API	
GET	/api/shows/{show_id}
POST	/api/shows
PUT	/api/shows/{show_id}
DEL	/api/shows/{show_id}

Architecture and Features

The architecture such as the Controller, Database, Models, Validation, Configuration and API files are located inside the main folder and the HTML Templates are located inside *templates* folder.

The following features were implemented:

1. User login and register pages, admin login page, admin dashboard, ticket booking dashboard, and my bookings page.
2. An API on venues and shows.
3. Input field validation
4. Venue management, show management, search for shows using filters, booking tickets.

Video Link

<https://drive.google.com/file/d/1vUklnPDzDTxKjbhcVgrAH9hhAwwLbQLB/view?usp=sharing>