

MAD2 PROJECT REPORT

Ticket Buddy: A ticket booking web application

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About me: Currently I am enrolled in the BS degree from IIT in Data Science and Applications, Madras. Simultaneously, I am also pursuing a BTech. Degree from IEM, Kolkata in CSE with specialization in AI & ML. Recently, I have also worked as a Data Science intern at Happymonk, Bengaluru.

I. PROJECT DESCRIPTION:

TicketBuddy is a ticket booking web app that is designed for booking tickets. It allows users to book tickets for various movies across different venues. There are two roles: user and admin. Regular users can sign up, log in, search for movies and book tickets, while the admin has additional privileges such as managing venues and movies. There is a varied movie price for every movie in every theater. There is also search functionality available, as well as frequent reminders for the user to stay updated.

II. TECHNOLOGIES USED:

- Frontend: Vue, Vue Cli, HTML
- Backend: python, Flask
- Styling: Bootstrap, Vue Bootstrap
- Database: SQLite
- API handling: Insomnia
- Security: JSON Web Tokens
- Caching: Redis
- Batch jobs: Redis and Celery
- Redis and Celery handling: WSL

III. DATABASE SCHEMA:

The Ticket Booking Web App employs the following data models:

<u>admin</u>	<u>customer</u>	<u>category</u>	<u>movie</u>	<u>booking</u>	<u>venue</u>
admin_id (PK) email password name	cust_id (PK) email password name address phone	category_id (PK) name description	movie_id (PK) venue_id (FK) name movie_rating movie_time category_id (FK) ticket_price number_of_seats	booking_id (PK) cust_id (FK) venue_id (FK) movie_id (FK) number_of_tickets	venue_id (PK) venue_name venue_state venue_city

IV. API DESIGN:

Common Routes	Routes specific to user	Routes specific to admin
<ul style="list-style-type: none">• /register• /adminmovie• /exportcsvasync/<int:venue_id>• /exportresult/<string:id>	<ul style="list-style-type: none">• /login• /updateprofile• /pickvenue• /pickmovie• /useraddbooking/<int:movie_id_param>• /search_venue_keyword/<string:keyword>• /search_movie_keyword/<string:keyword>	<ul style="list-style-type: none">• /loginadmin• /admincustomers• /admincategories• /deletecategory/<int:category_id>• /adminaddcategory• /modifycategory/<int:category_id>• /adminvenue• /deletevenue/<int:venue_id>• /adminaddvenue• /modifyvenue/<int:venue_id>• /deletemovie/<int:movie_id>• /adminaddmovie• /modifymovie/<int:movie_id>• /exportcsv

V. FEATURES:

The Ticket Booking Web App offers the following features:

- user registration and authentication
- login with RBAC
- venue and movie table management (Admin-only)
- user can book multiple shows
- movie and venue search functionality
- Scheduled daily reminders and monthly entertainment reports
- Exporting CSV
- Performance optimization through caching
- can work as a desktop application

VI. CONCLUSION:

The Ticket Booking Web App successfully provides users with an efficient and user-friendly platform to browse and book tickets for various shows. The combination of Flask, VueJS, Redis, and Celery contributes to a high-performance application that meets the system requirements.

VII. VIDEO:

<https://drive.google.com/file/d/1jhlsNtKrsWtwndQdFazXni0QLBwaRAJM/view?usp=sharing>