GETHUB: A Ride Booking System Project

















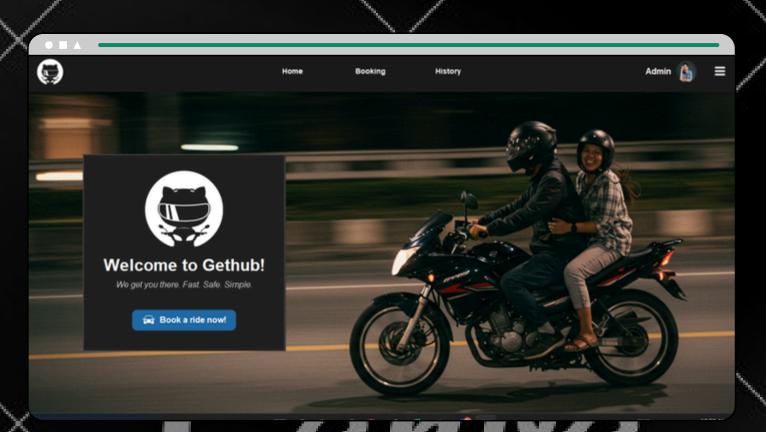






PROJECT OVERVIEW

Gethub — a ride-hailing app designed to provide faster, safer, and more accessible transportation for everyone. This project aims not only to address everyday commuting needs but also to serve as a practical application of all the concepts of Object Oriented Programming. Through Gethub, we intend to demonstrate how OOP concepts can be effectively used to build a simple yet functional ride-booking app.



OBJECTIVES

- To apply object-oriented programming concepts such as classes, inheritance, and polymorphism.
- To learn and implement file handling in Python for saving and retrieving application data.
- To design and develop a graphical user interface using Tkinter.
- To understand and implement basic software engineering principles such as modularity and encapsulation in a practical application.

PROGRAMMING LANGUANGE



Python



LIBRARIES/TOOLS



















- CustomTkinter
- OpenStreetMap
- GeoPy
- SQLite
- ImageFX







PLATFORMS

- Figma
- Draw.io
- Git/Github
- Discord

















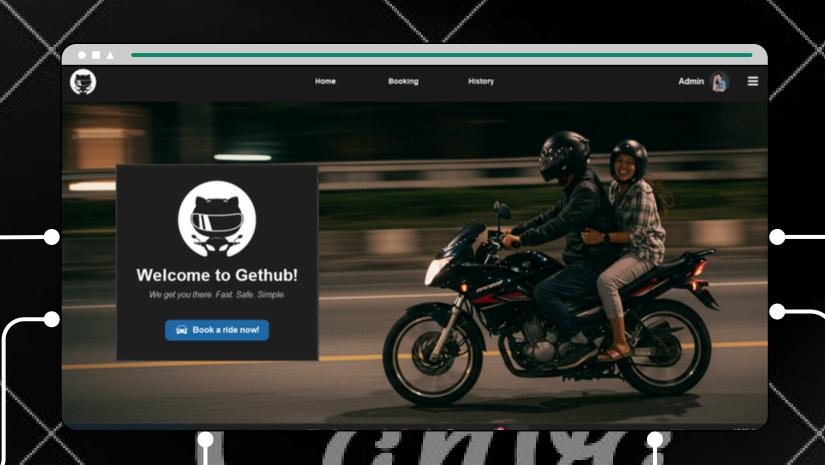


Interactive Map Interface

Drag, zoom, and add markers with our interactive and responsive map.

Route Calculation and Display

Automatic route calculation with OSRM.



Vehicle **Types**

Users can select various vehicle types such as car, van, or motorcycle.

User Accounts

their create which stores accounts account-specific booking database for privacy.

Distance, Time, and Fare Calculation

details Automatic calculation with OSRM.

Booking Information Management

SQLite database holds all information of saved bookings to allow for downloads.















USER AUTHENTICATION LOGIN/SIGNUP

START

Homepage

Press Sign Up buttor

Soes the user have existing account?

Press Login button

Enter Existing Us details

Have all the fields bee filled?

Show error message

Do you want to save you login data?

Click Remember Me check button

User data is stored in the system's database

Press Login button

Press Book a Ride Now button

details

Have all the fields be filled?

Press Login button

Show error message

Redirect user to Homepage

END



X



BOOKING A RIDE

View of the homepage with the button "Book a ride now!"

Mave all fields been filled?

View the booking summary

Press Cancel Booking button

Input Pick-up Location/ Pin in map

Press Go Back button

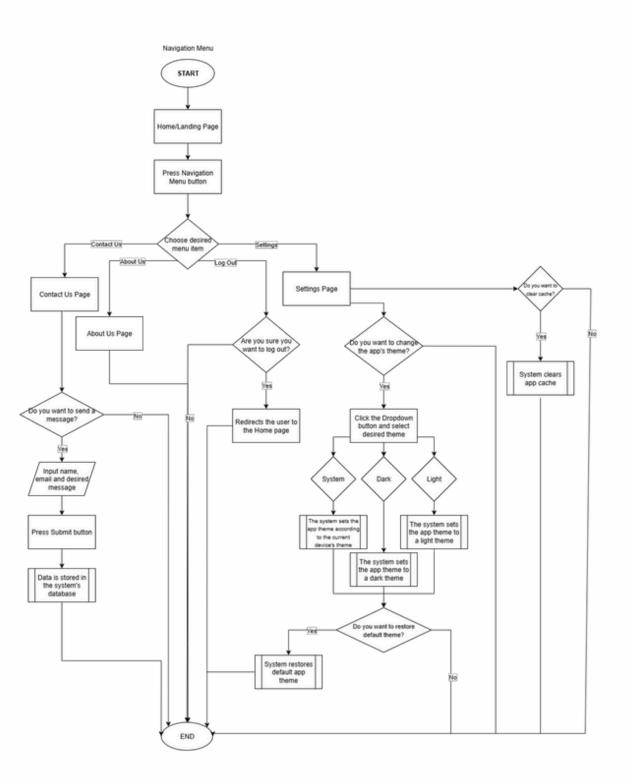
System finds a suitable route and calculates the distance to be travelled

Choose the type of vehicle

Press Confirm Booking button

Continue with the booking?

System stores the booking summary to the history and finds an available driver















END





Réferences

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