



Campus Carpool Application using Geolocation

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Problem:

- Today many students are driving to and from to school, spending on gas costs.
- This also makes finding parking on campus difficult.

Solution:

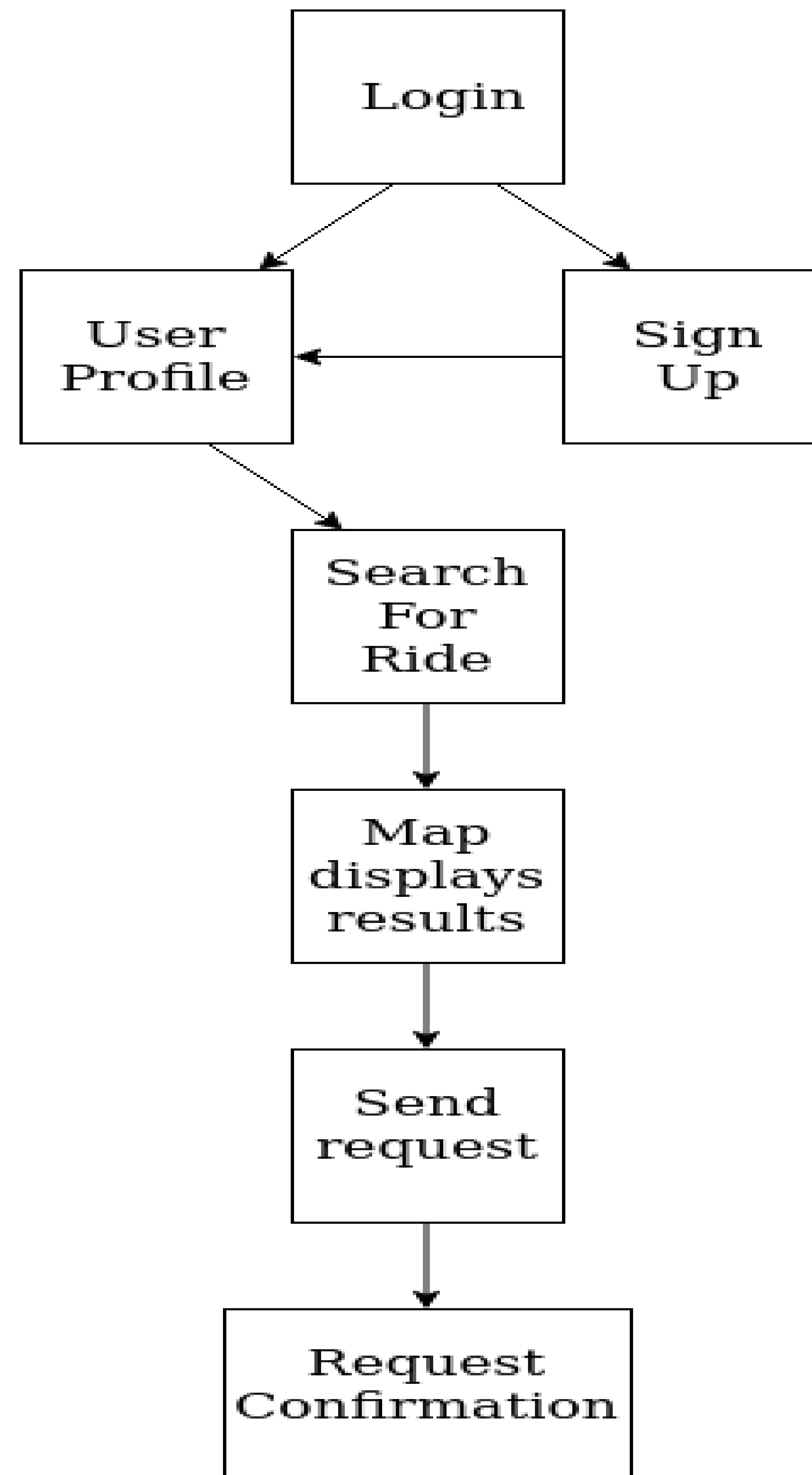
- Develop a carpool app using flutter and firebase for students that will allow them to share rides.

Implementation:

- Use geolocation to find the user's current location.
- Then use geofencing to find other users near the current user in a given radius.
- Check if any of the users near by the current user are going to the same location. If so, then compare each route with the current user's route.
- Display all users found from the previous step along with a percentage of how closely each route matches with the current user's route & allow the current user to pick which user they want to carpool with.

Features:

- Login and sign up
- User authentication
- Google Maps API
- Geolocation
- Ride matching



Technologies:

- Visual Studio Code
- Flutter
- Firebase Authentication
- Firebase Cloud Firestore
- Xcode
- Android Studio

Conclusion:

- In conclusion, using flutter we built a carpool application to help students save money on fuel costs.
- For clarification, the application is incomplete as there have been issues in implementing the ride matching.