

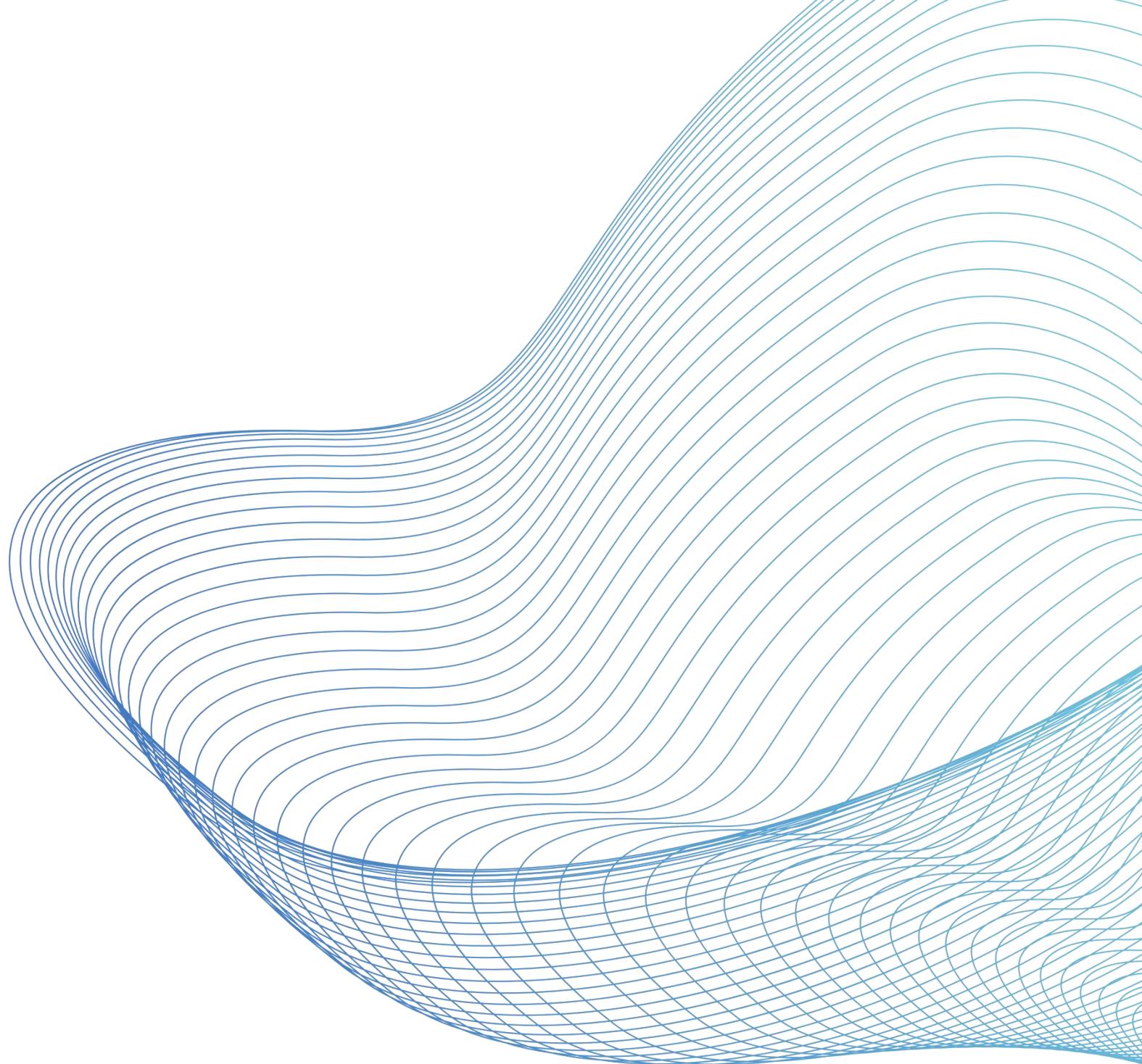


Massey University | HEBUT

# GROUP 4

# GOOGLE MAP

# COMPETITOR

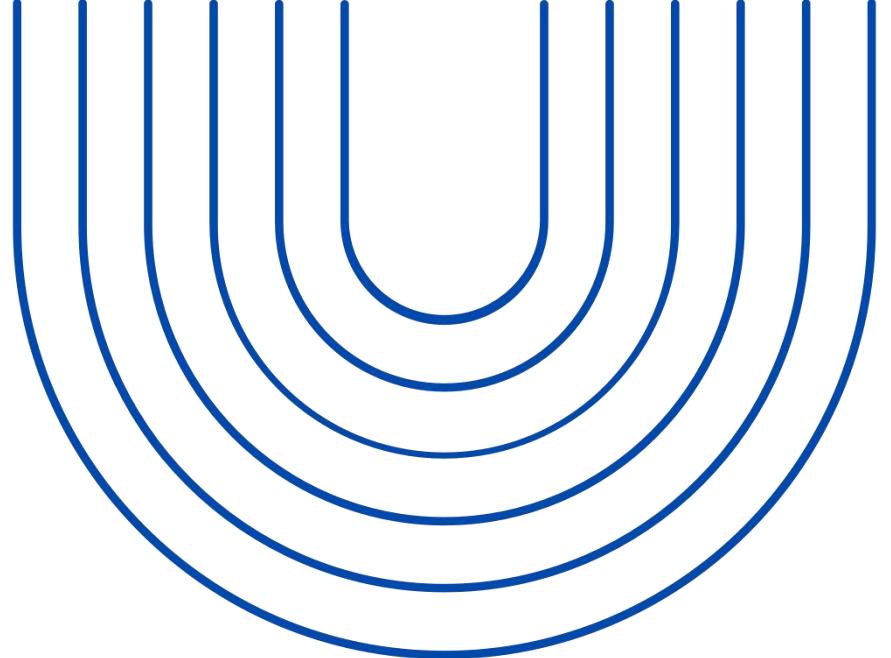


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- 01. USE CASE DIAGRAM**
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- 04. SEQUENCE DIAGRAM**

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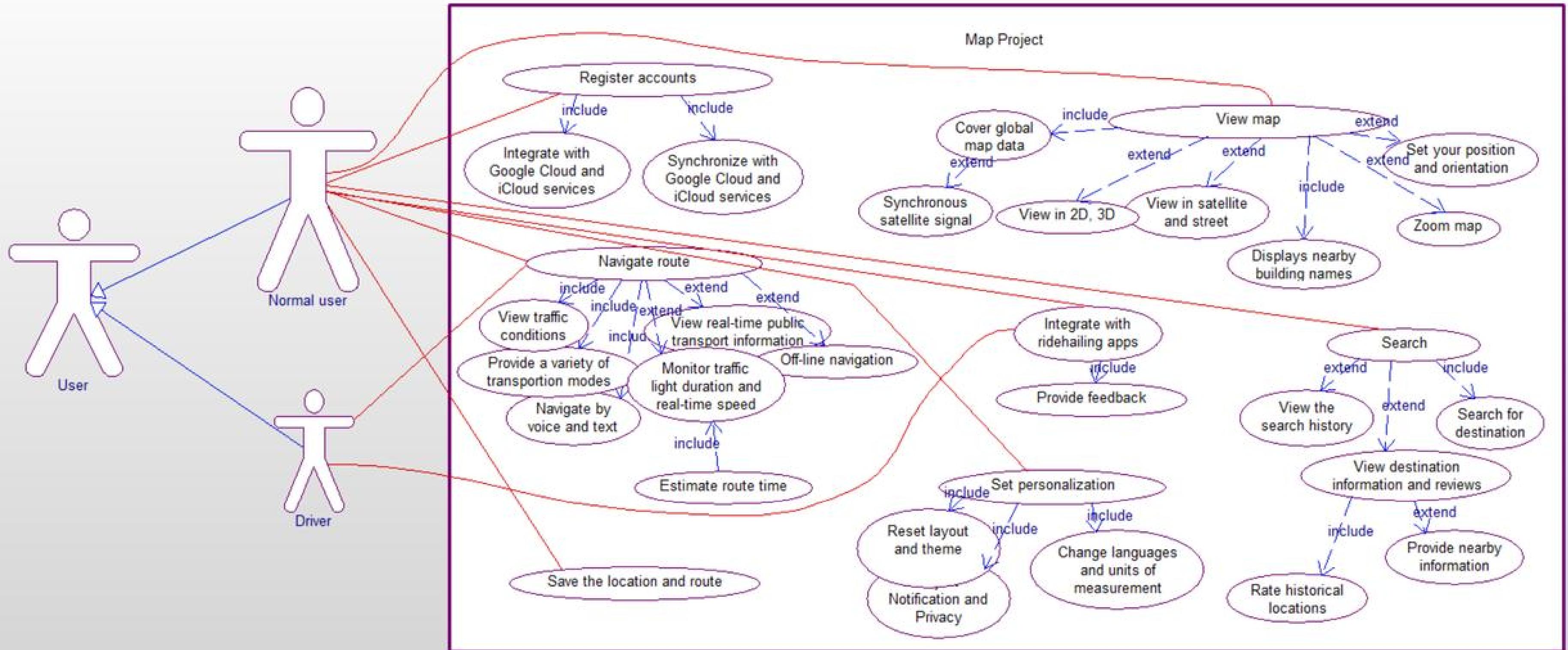
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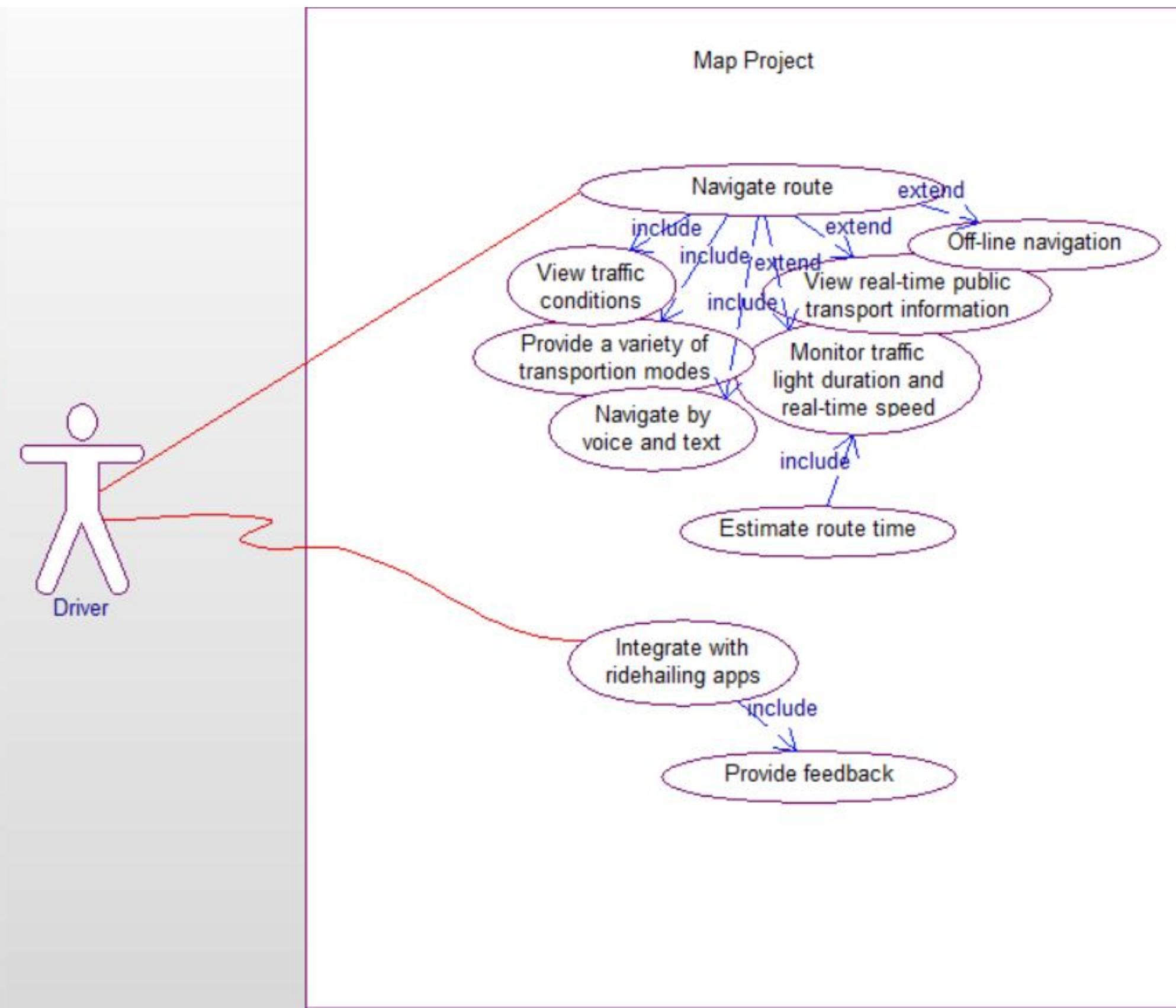
# USE CASE DIAGRAM

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# OVERVIEW



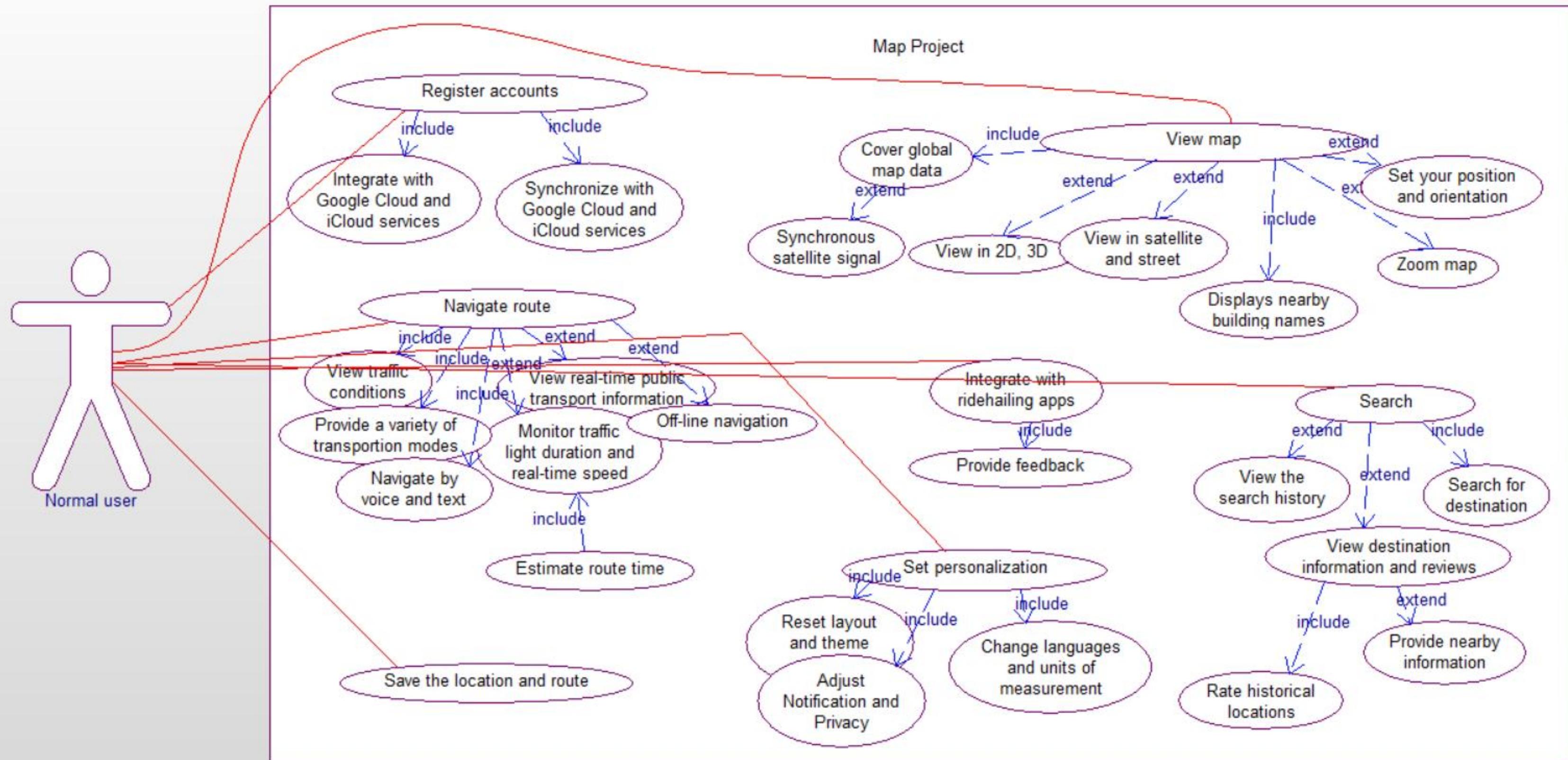
# DRIVER



## Feature:

Can integrate seamlessly with other transportation-related applications, such as ride-hailing apps.

# NORMAL USER

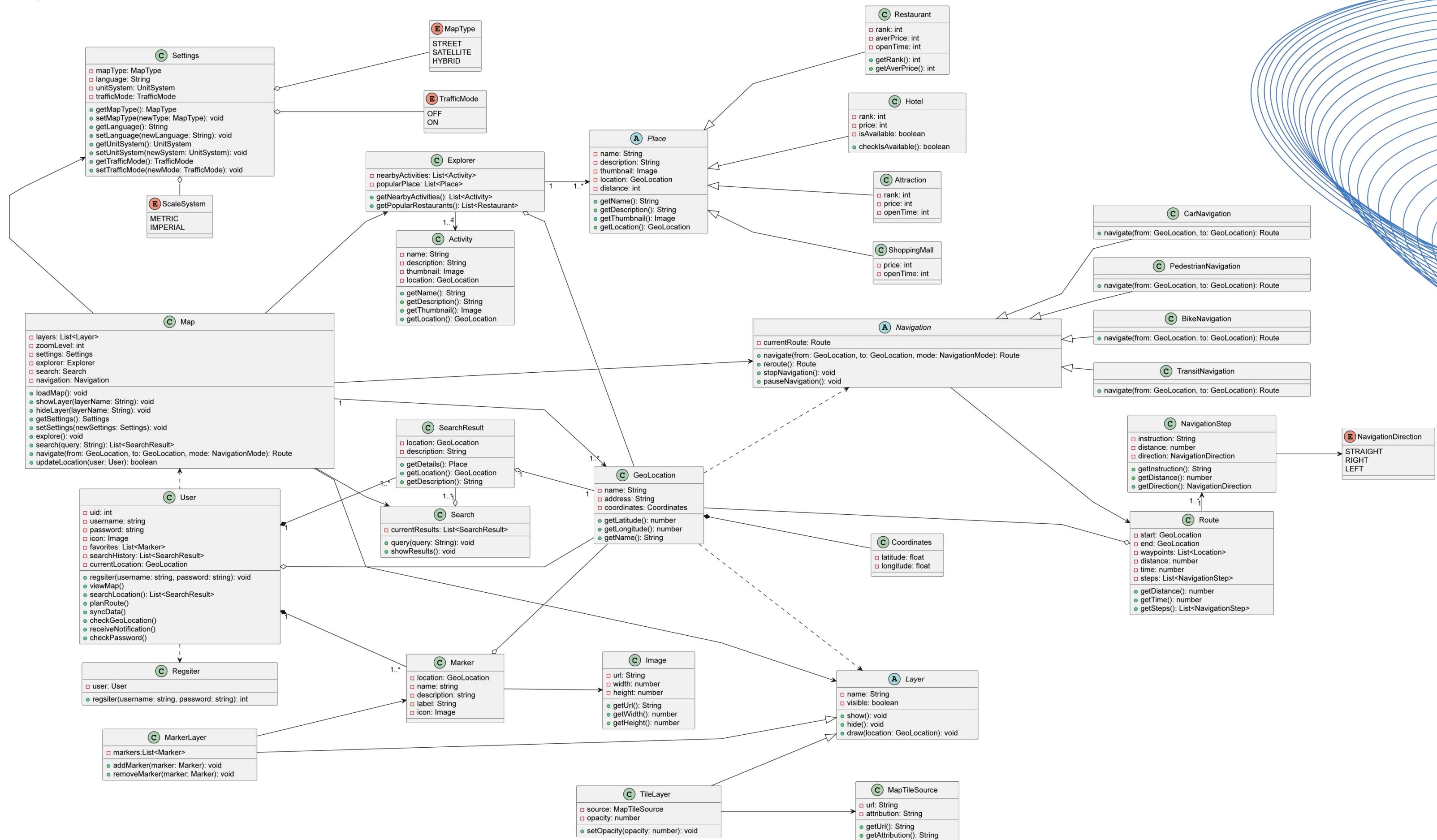


02.

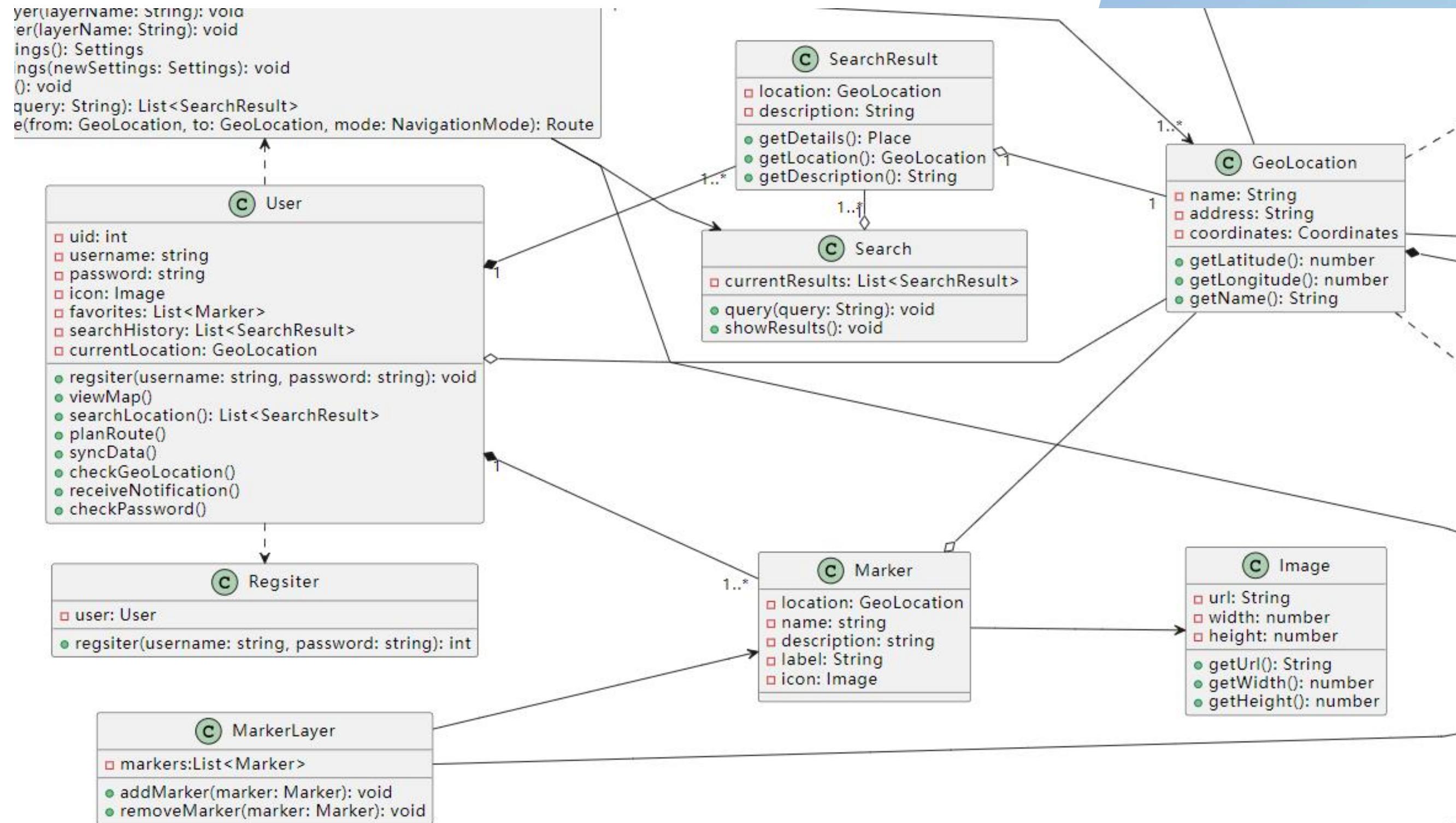
# CLASS DIAGRAM

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# OVERVIEW



# USER



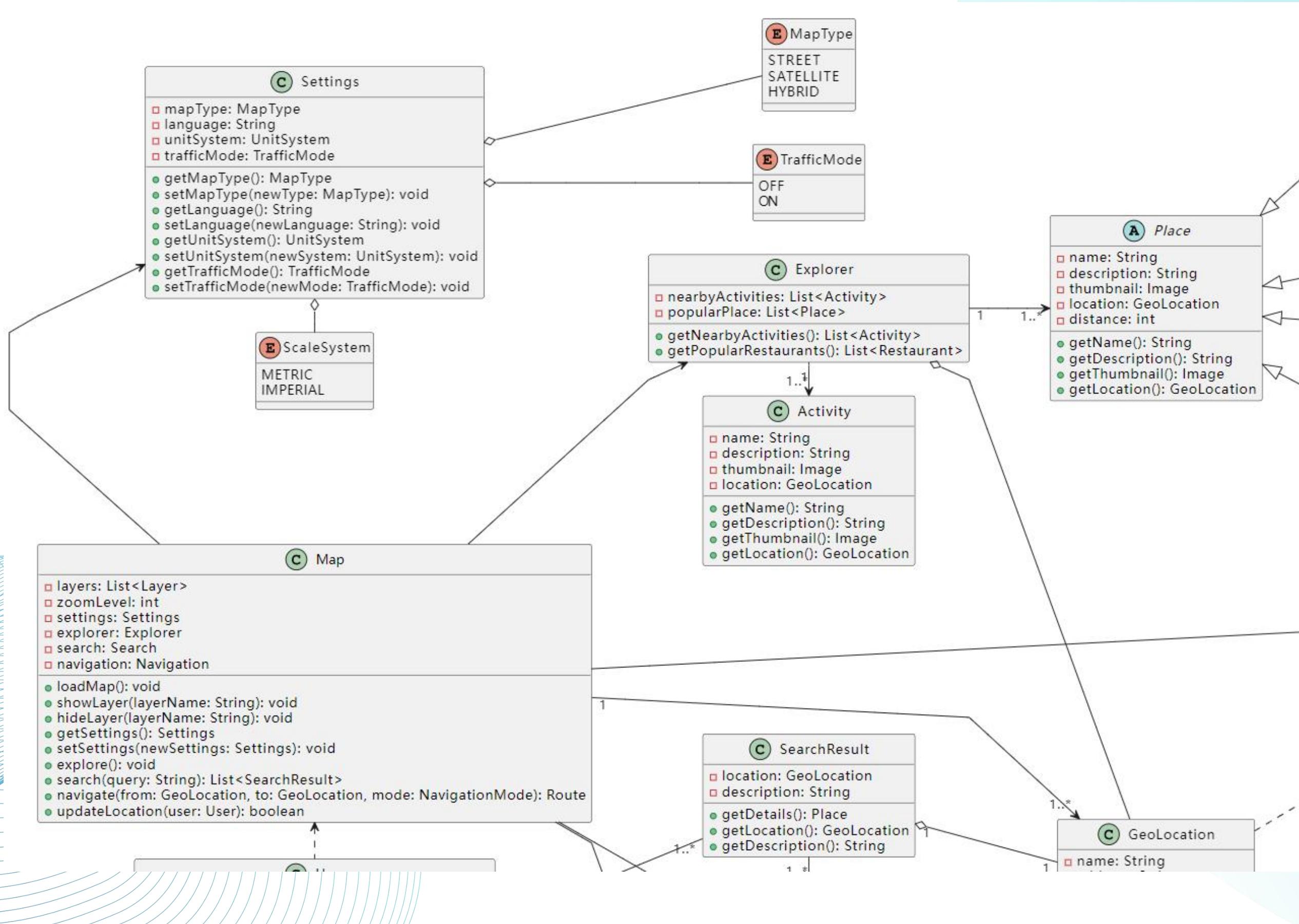
## Implement Method:

- +register()
- +viewMap()
- +searchLocation()
- +planRoute()
- +syncData()
- +checkGeoLocation()
- +receiveNotification()
- +checkPassword()

## Related Class:

- Register
- SearchResult
- Marker

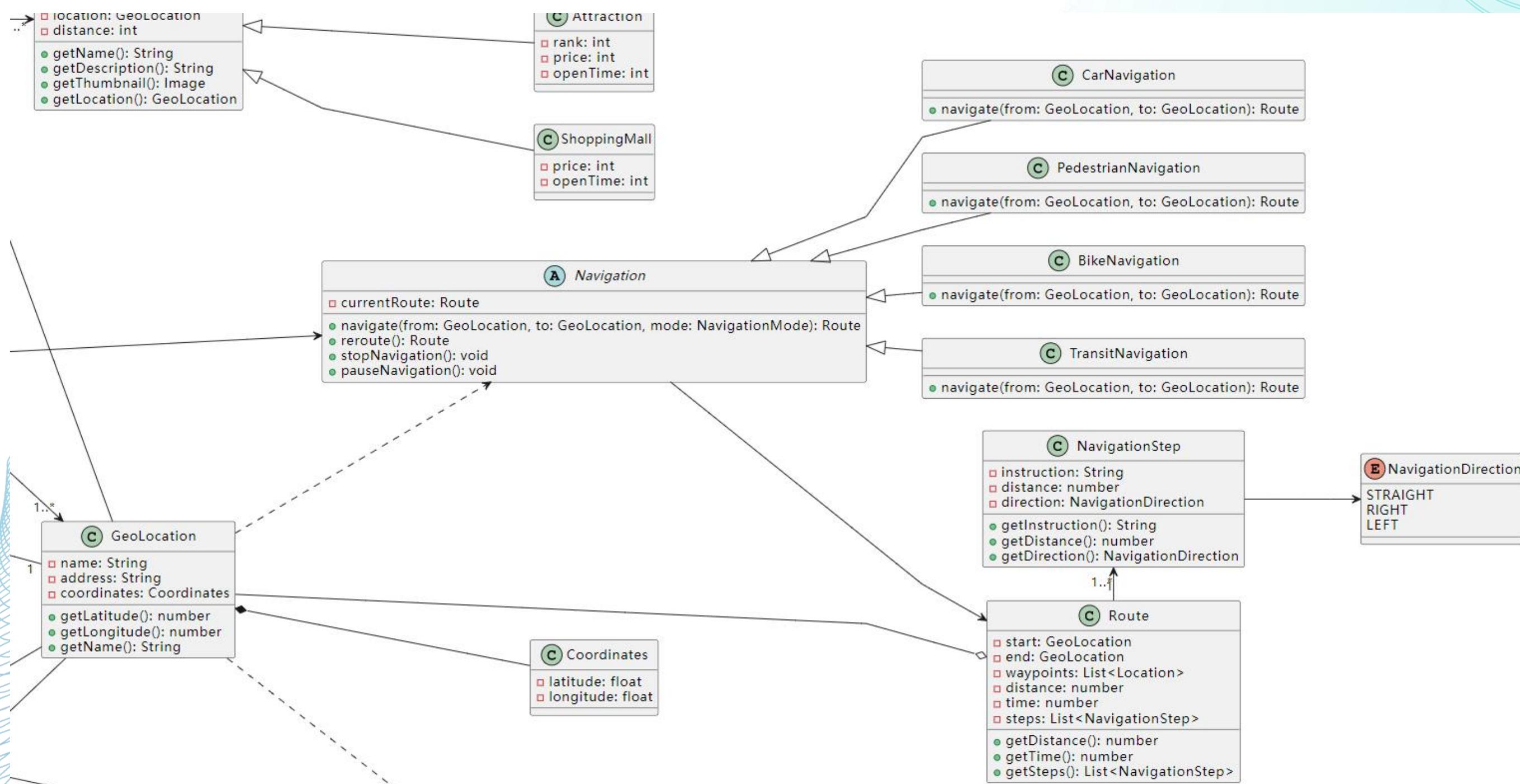
# MAP



The **Map** class is the backbone of the application. It contains several private properties like markers and layers. It also contains settings, explorer, search, and navigation classes, which are all connected by one-to-one relationships. The public methods of this class include `loadMap`, `showLayer`, `hideLayer`, `getSettings`, `setSettings`, `explore`, `search`, and `navigate`.

The **Explorer** class contains two Lists - `nearbyActivities` and `popularPlace` - and two public methods for getting nearby activities and getting popular restaurants.

# NAVIGATION



## • Navigation

attribute:

currentRoute

method:

navigate()

reroute()

## • Route

attribute:

start

end

distance

steps

wayPoints

time

03.

# ACTIVITY DIAGRAM

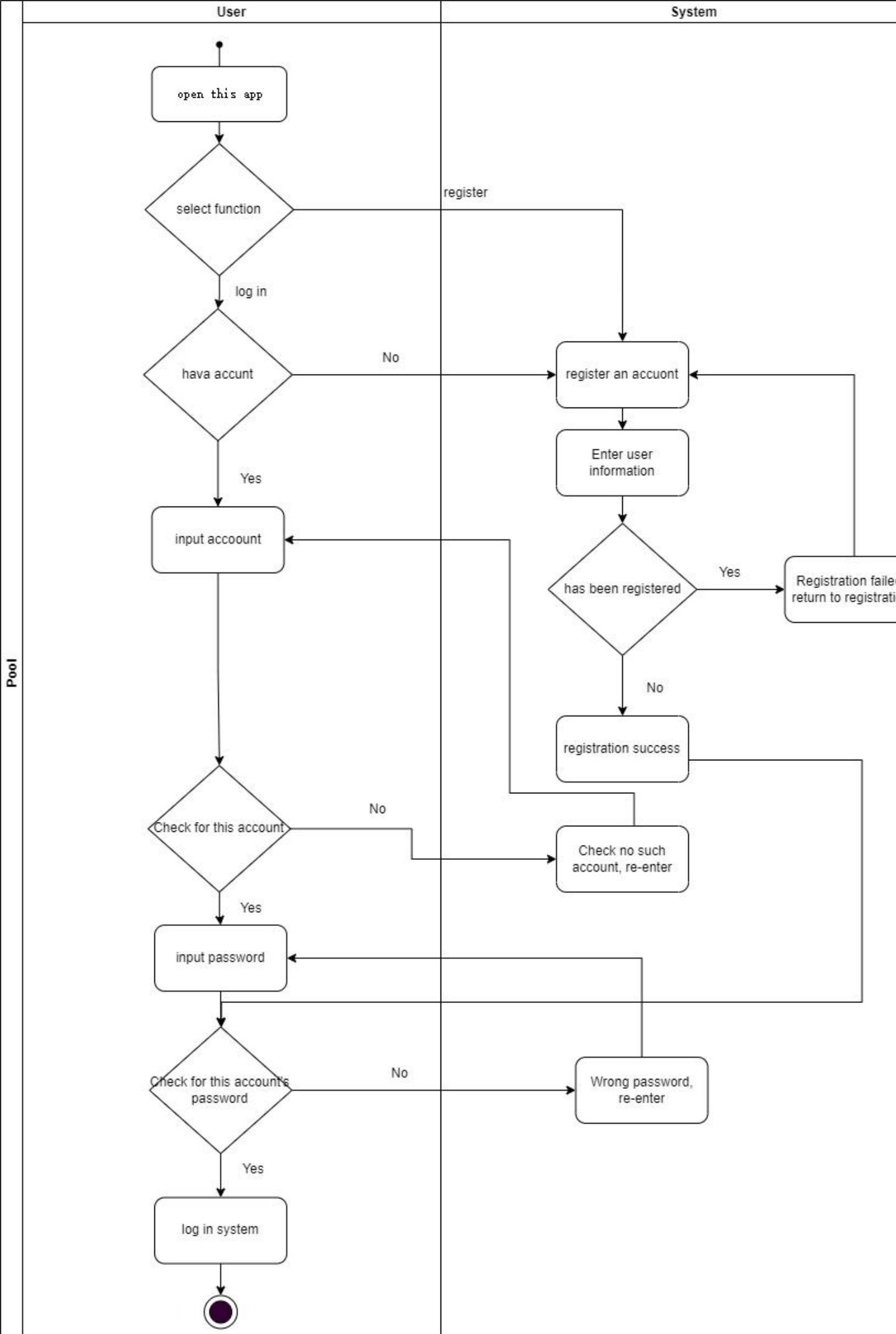
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# 1 LOGIN

The user login process swimlane diagram outlines the different functional components involved in user registration, login, and system account verification.

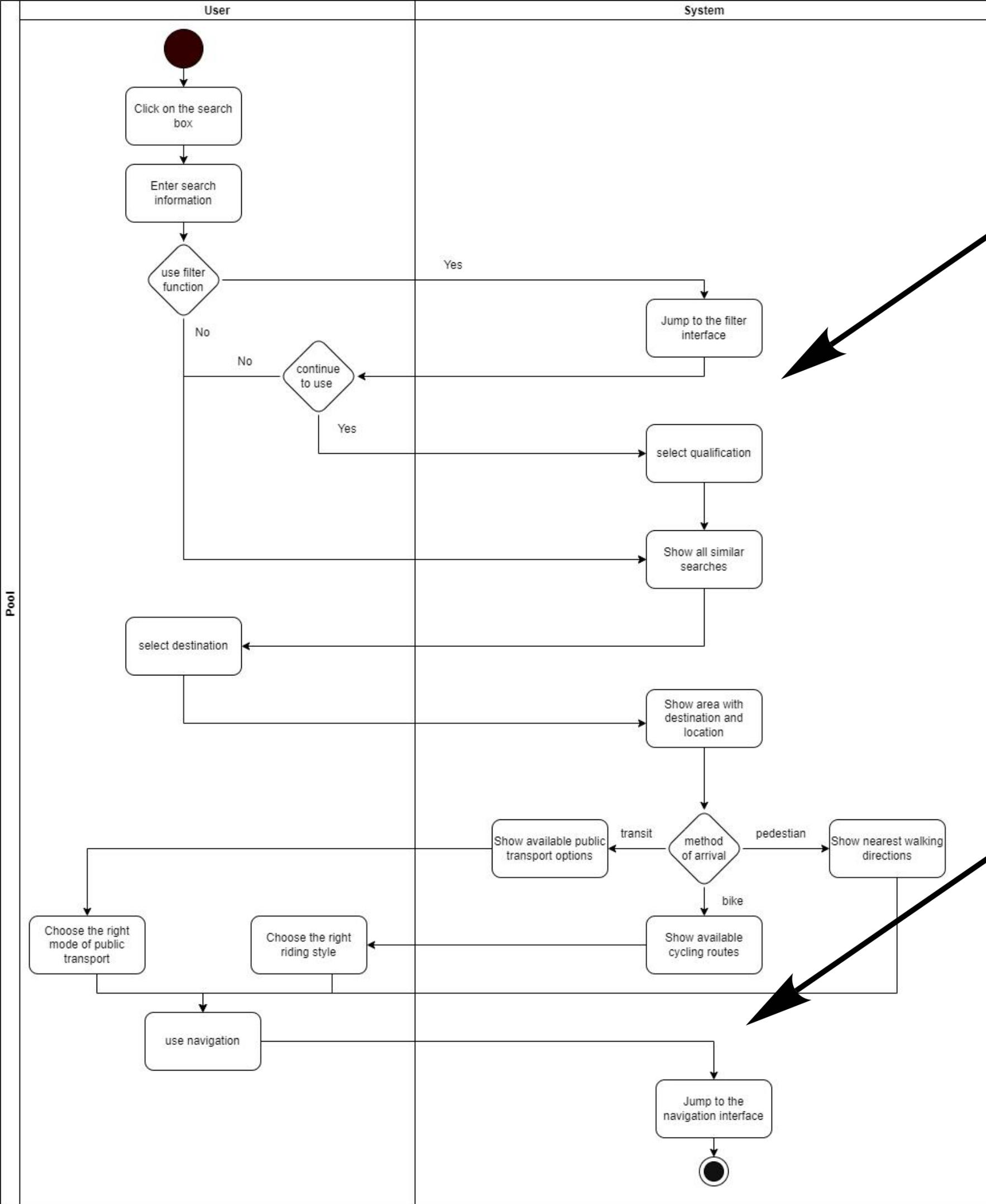
In the registration section, new users can create an account and enter their personal information.

In the login section, users input their account details to access the system. The system checks that the account and password information are correct before allowing the user to log in. These functionalities ensure user accounts are properly secured, and users can easily and securely log in to the system.



# 2 NAVIGATION

- specify the search parameters



Specify the search parameters such as destination and mode of travel. The system then generates a list of potential destinations that match the criteria.

Users can then apply filters to refine their search results based on factors such as distance or ratings.

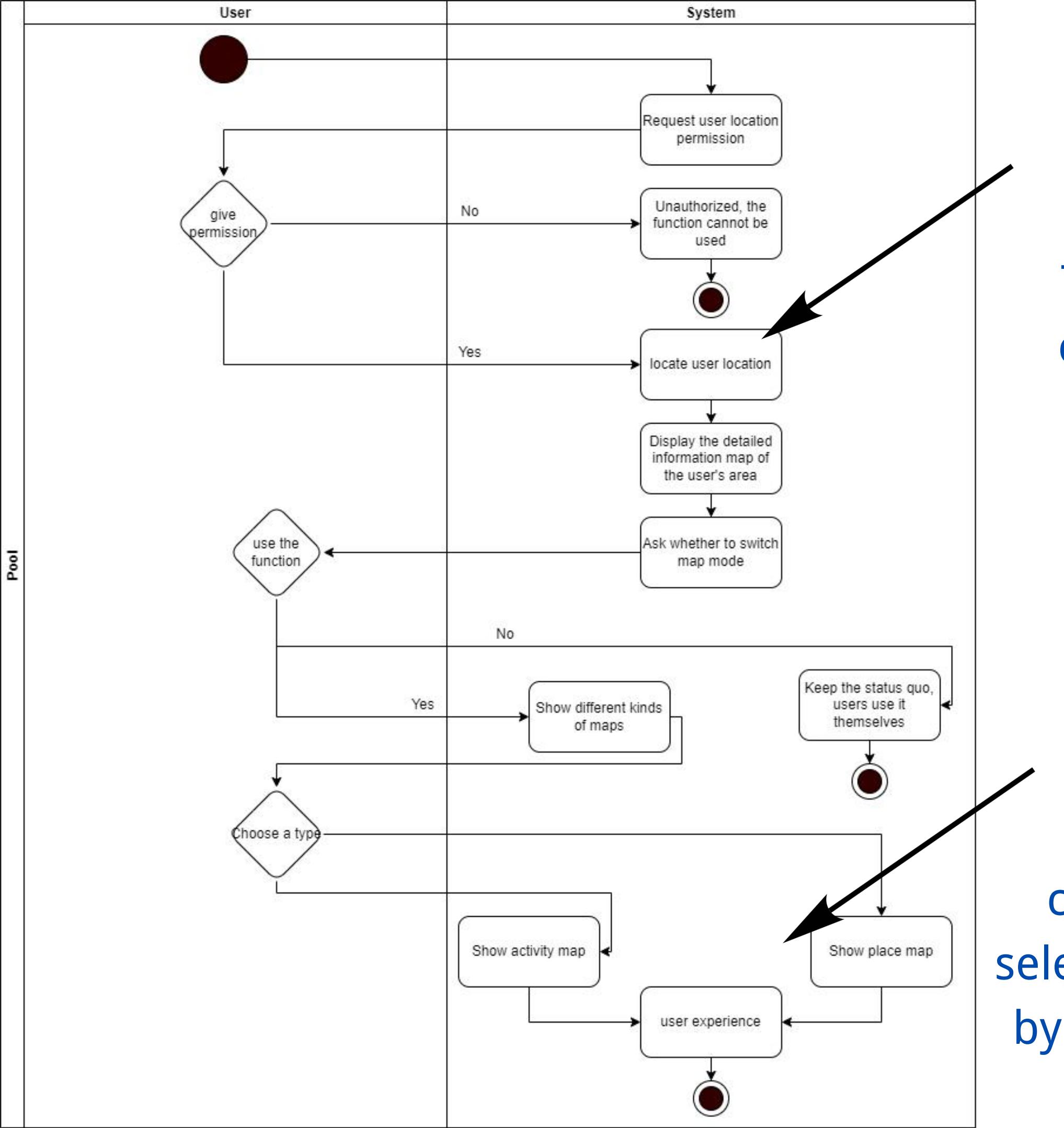
- different modes of transportation

Once a destination is selected, the user can choose from different modes of transportation like driving, public transport or walking. Finally, the system will provide the user with the quickest and most accurate route to their chosen destination.

# 3 EXPLORE

- displaying the user's current location

This feature includes displaying the user's current location on a map and will set this location as the default departure location



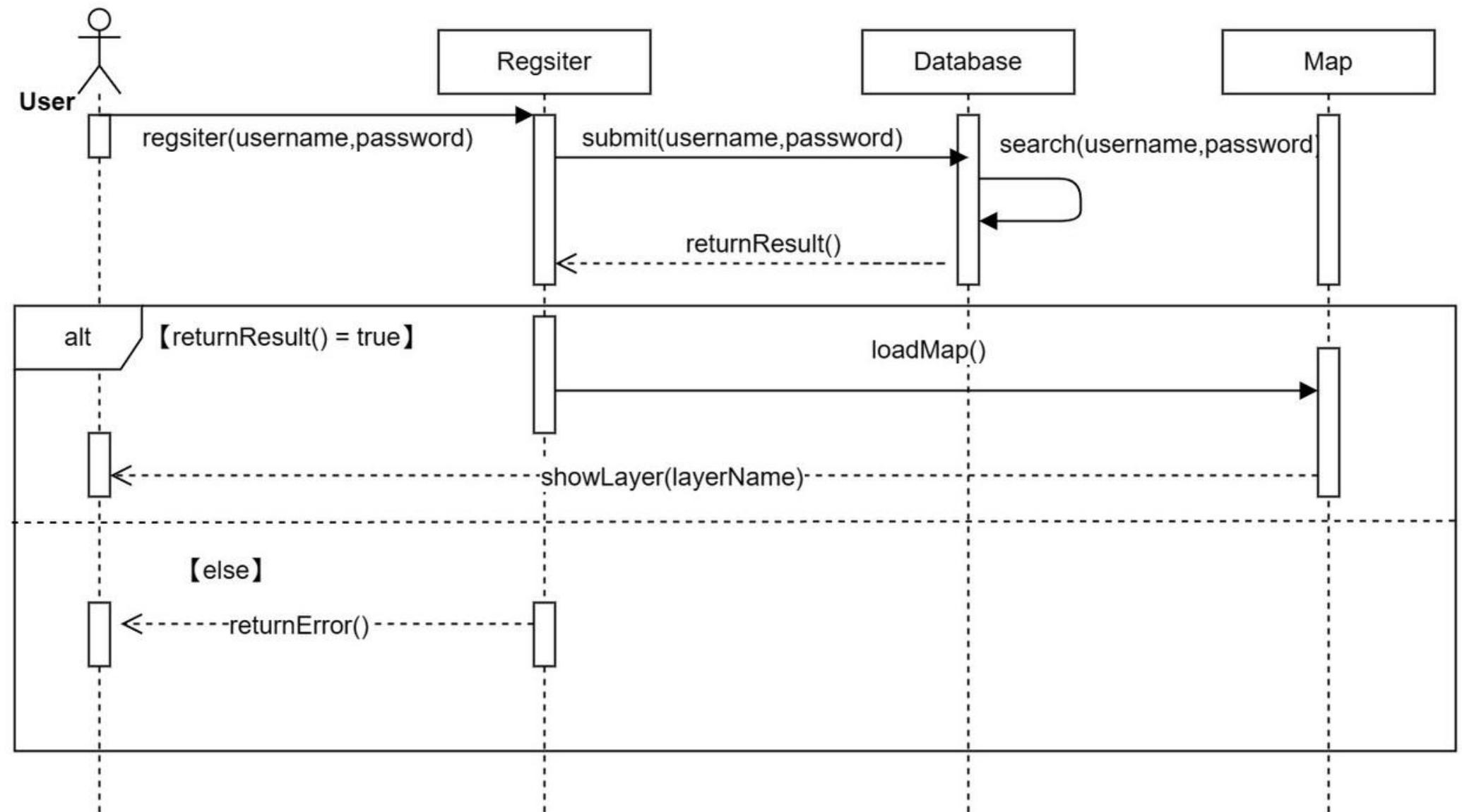
- showcasing maps for activities and places
- The maps are categorized into two main categories: activity and place. The user can select a category and further refine their search by applying filters based on their preferences.

04.

# SEQUENCE DIAGRAM

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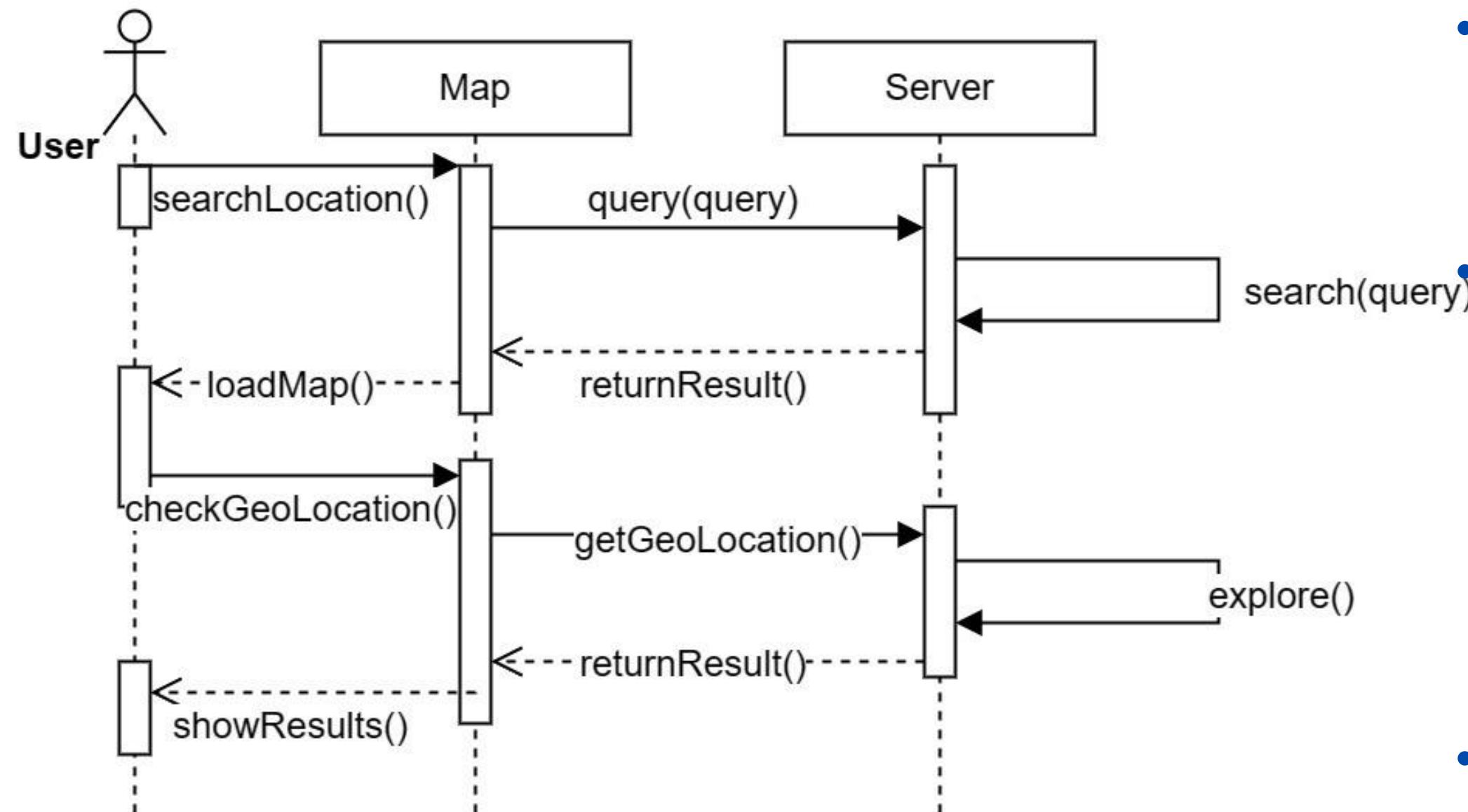
# 1 REGSITER



- User: Enter the account and password, and click the login button to send a login request to the application.
- Register: Receives a login request from a user and forwards the request to the application.
- Application: After receiving the login request, the application sends the request to the database to verify the correctness of the user account and password, and returns the corresponding information according to the verification result.
- Database: After receiving the login request from the application, the user's account and password are authenticated, and the authentication result is returned to the application.

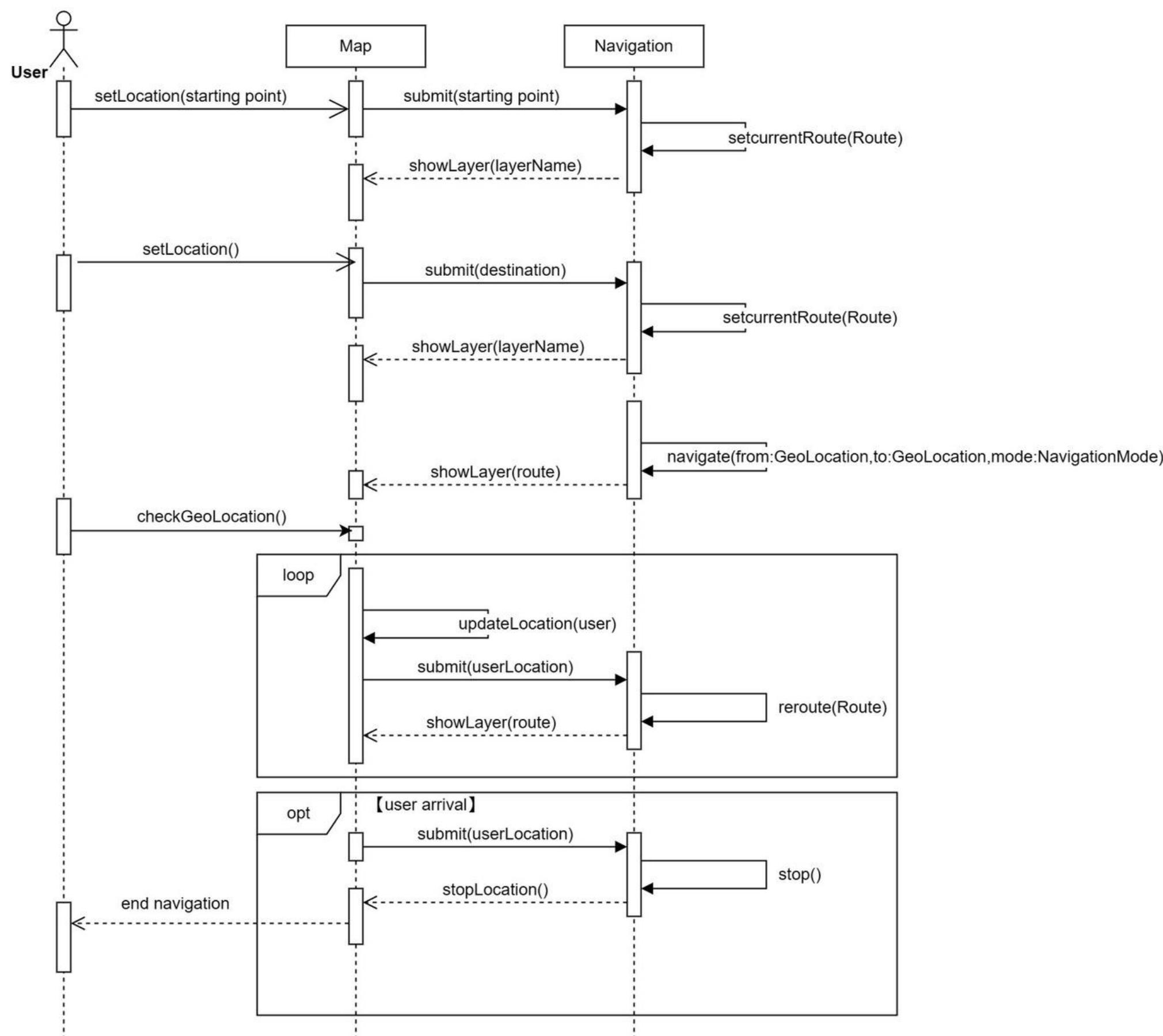
This sequence diagram shows the login function of an application. It contains four objects: user, Register, Database, and Map.

# 2 SEARCH



- User: The user clicks the search button and sends a search request to the application.
- Map: After receiving a search request from a user, the map forwards the request to the server. After receiving a reply from the server, the map displays related information and allows users to view related information.
- Server: After receiving the search request, it processes the search request, searches the keywords, obtains the location information, and returns the result to the Map.

# 3 NAVIGATION



- User: The user clicks the navigation button and sends the start address and destination address to the Map.
- Map: The start address and destination address sent by the user are sent to the navigation system. The relevant route is displayed in the interface, and the latest location of the user is sent to the navigation system in real time.
- Navigation: After receiving the navigation request and related addresses, the system obtains the optimal route through the algorithm and returns the optimal route to the Map. Update the real-time location of the user during navigation and return the optimal route.

**THANKS  
FOR  
LISTENING!**

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