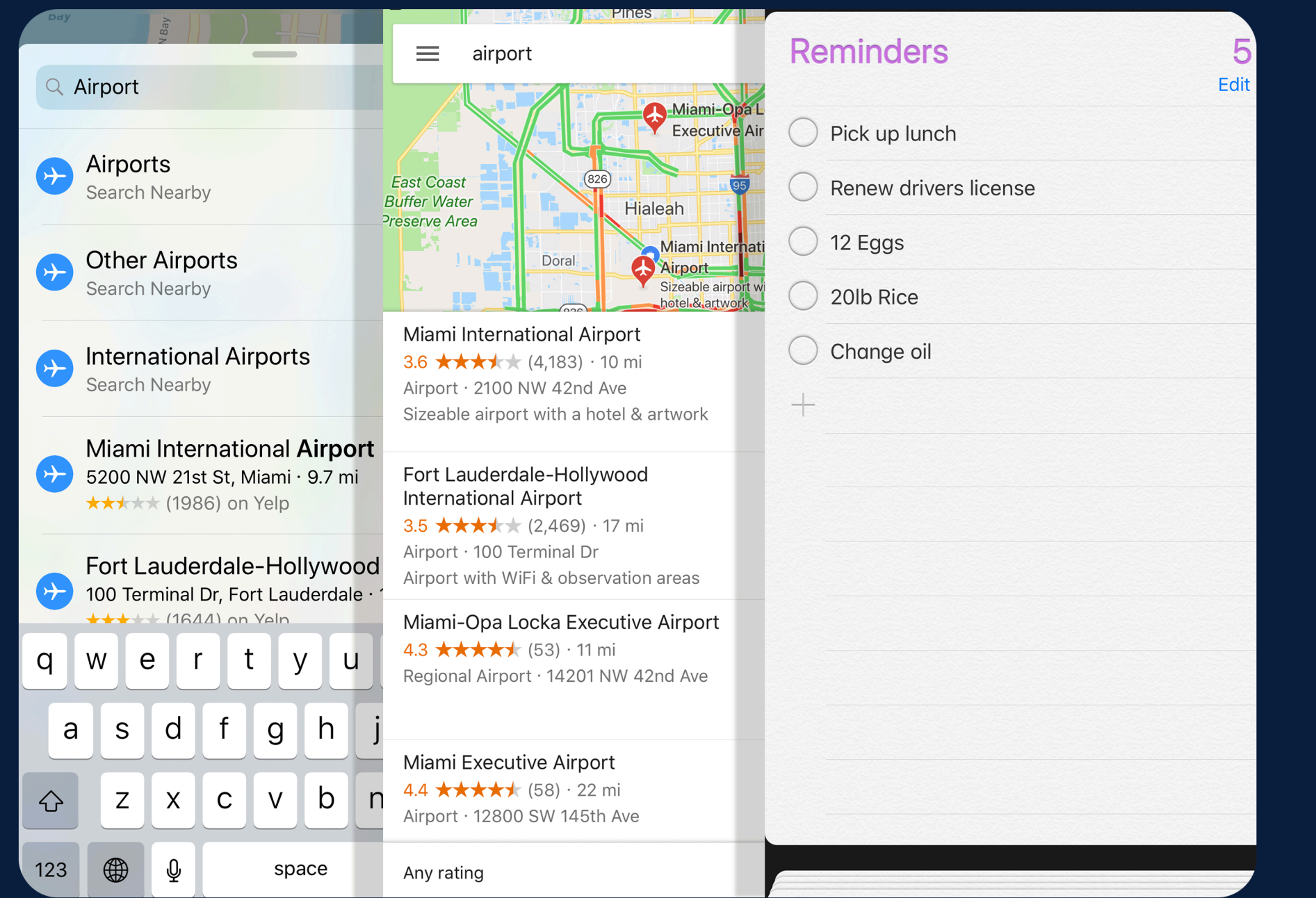


CURRENT SYSTEM

No application was found that integrates task management with efficient map routing. There are applications that have multiple place routing but they have very crowded UIs and don't integrate locations with tasks.

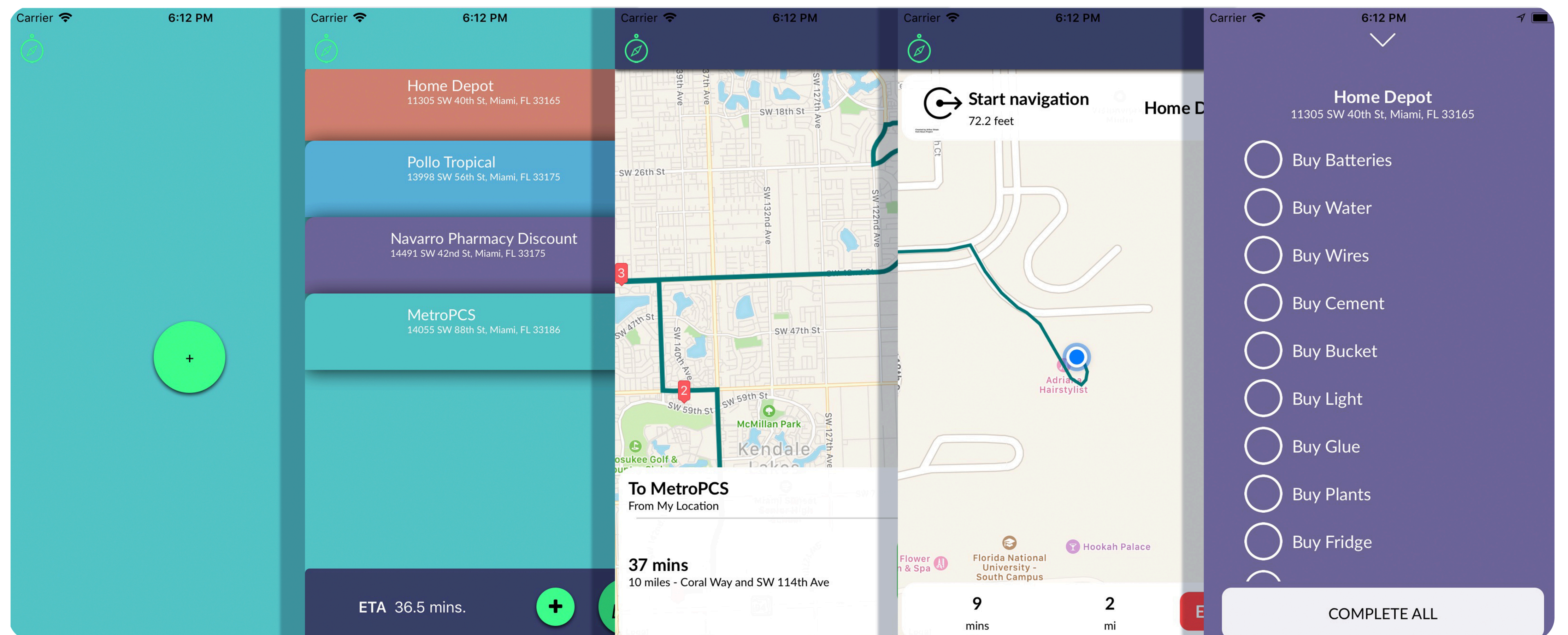


PROBLEM

Busy agendas that require multiple task at different locations don't find an optimal way in today's world to be accomplished. Swapping between reminders, navigation apps is a very inefficient way to plan a day.

SOLUTION

-To improve the planning experience for the user, To-do List Optimizer unified task planning with navigation. It eliminates inefficient application swapping and creates optimal navigation routes through the locations to accomplish all user tasks efficiently.
- My contribution to this project was based on the client side and the server side. I worked on integrating and keeping safe the communication between the front-end and the back-end of the application by using user sessions and Oauth2 to authenticate users.

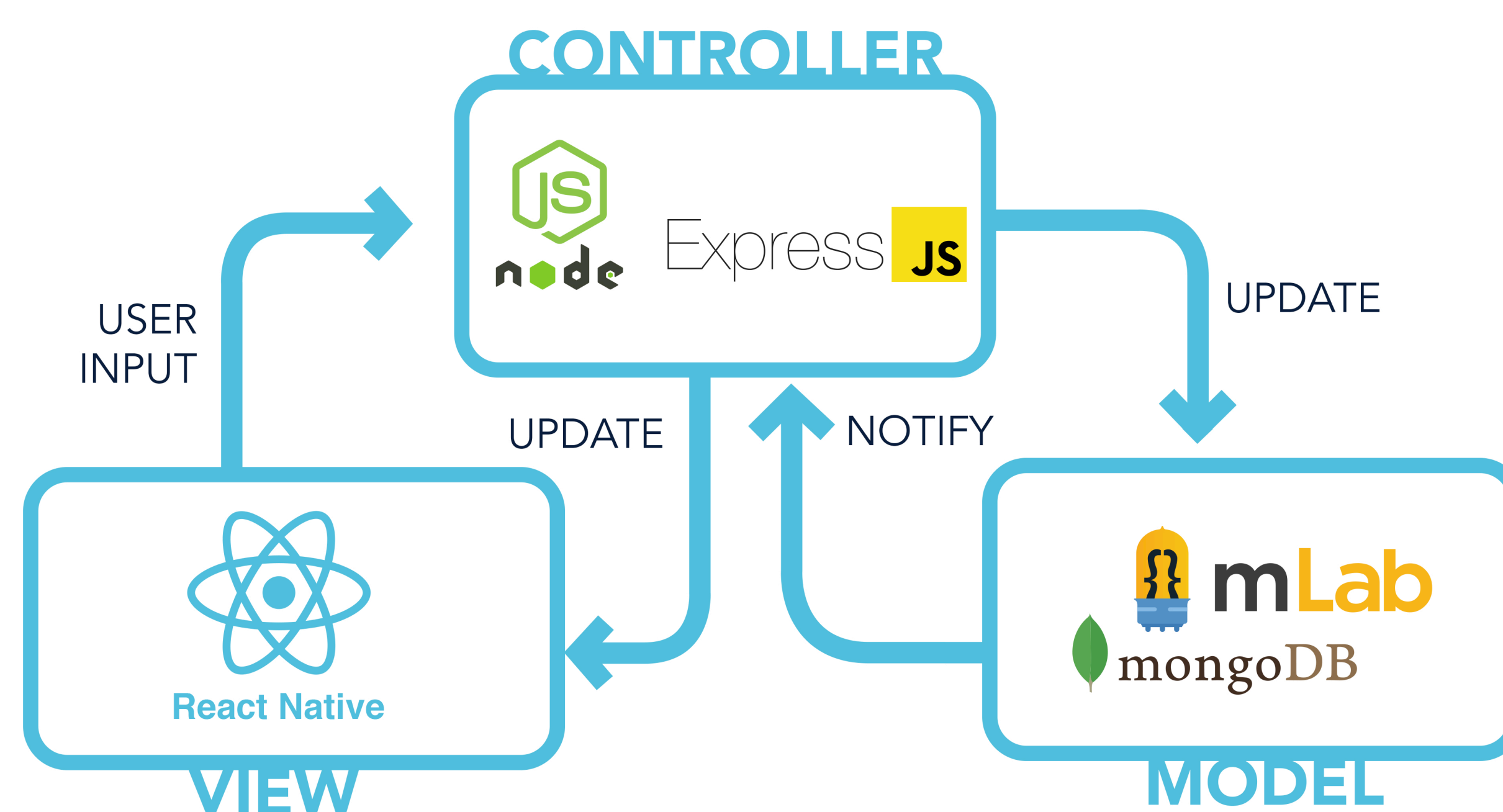


IMPLEMENTATION

- The client side was implemented using react-native.
- The server side was implemented with Node Js and Express Js to create a restful API that controls changes on a MongoDB hosted on Mlab.com.
- Place search was possible thanks to Google Autocomplete and Search APIs.

SYSTEM DESIGN

The system architecture chosen for this project is Model-View-Controller (MVC) design.



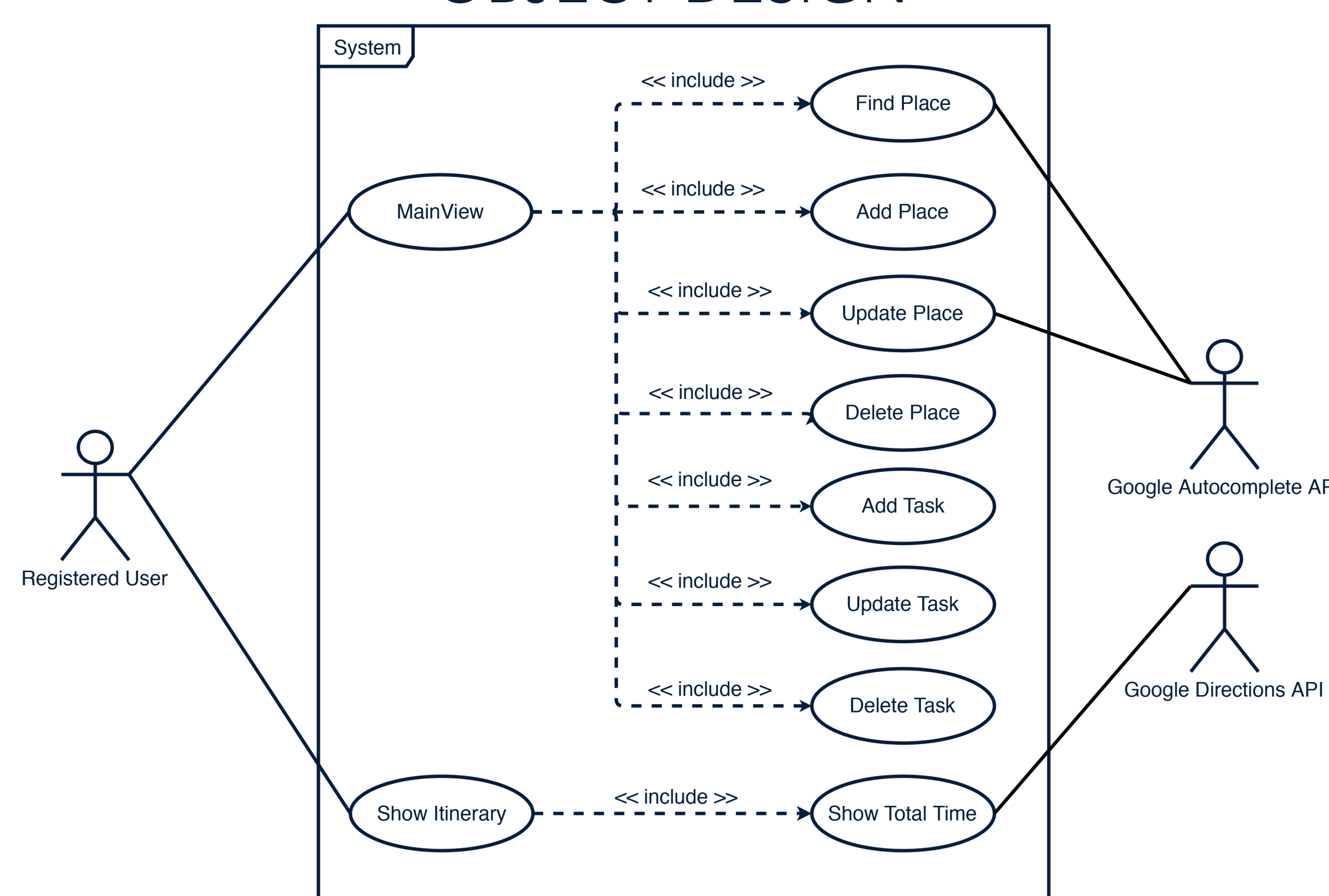
REQUIREMENTS

- Create Routes to add, update, and delete users.
- Provide user the ability to search places so that tasks can be added.
- Create authentication methods to secure information by using a session store on the database.
- Create routes so users can manage their places and tasks.

VERIFICATION

- Restful API was tested using postman to verify routes for adding, deleting and updating places and tasks.
- Multiple devices were used to test data persistence and security over all logged in devices

OBJECT DESIGN



SUMMARY

- Integration of task by location with map navigation.
- Navigation includes step by step guidance through multiple location.
- Live updates in route changes to provide the most efficient itinerary.
- Data will be accessible on any logged in device.