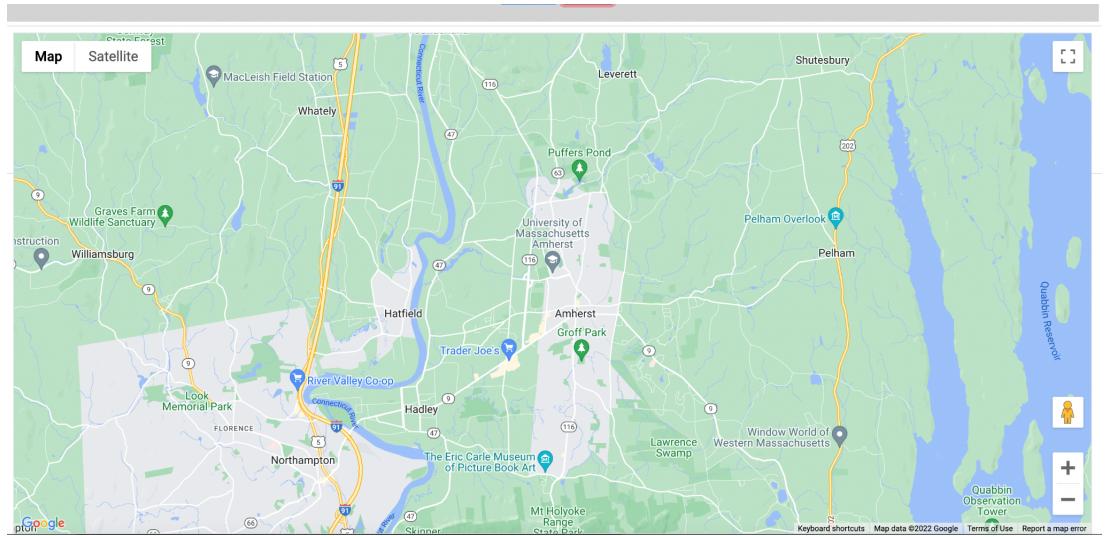


CS520 EleNa -Elevation based Navigation System

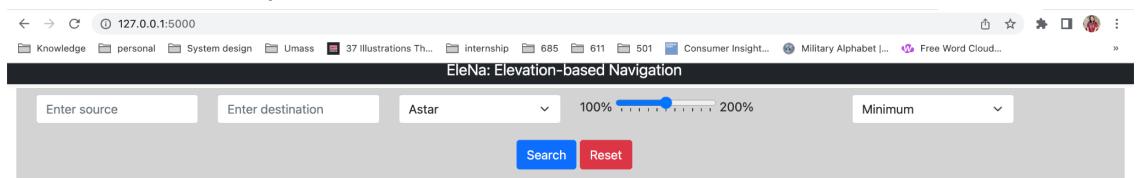
● UI Test Cases

1. Check while launching

- Empty map is displayed

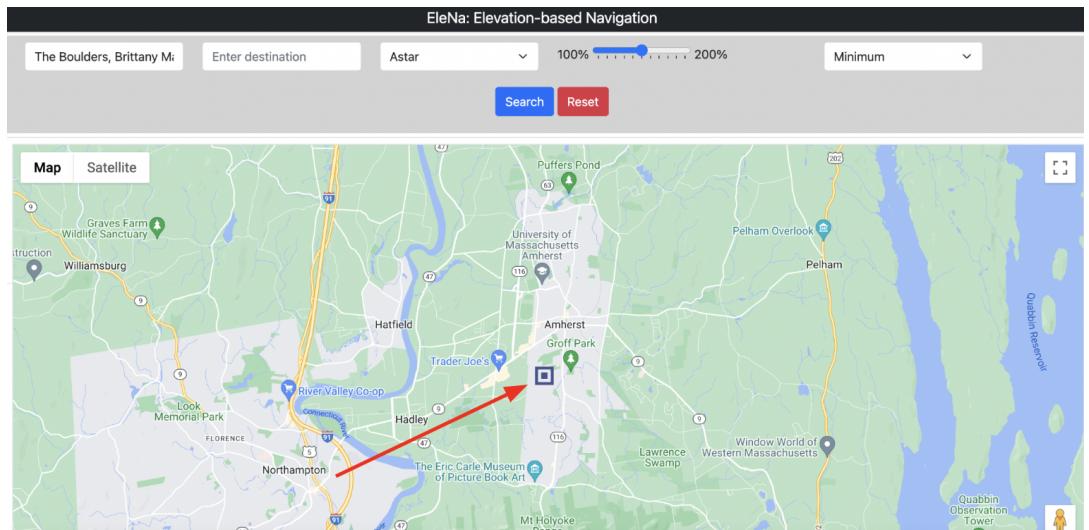


- Text boxes are empty and others are set to default

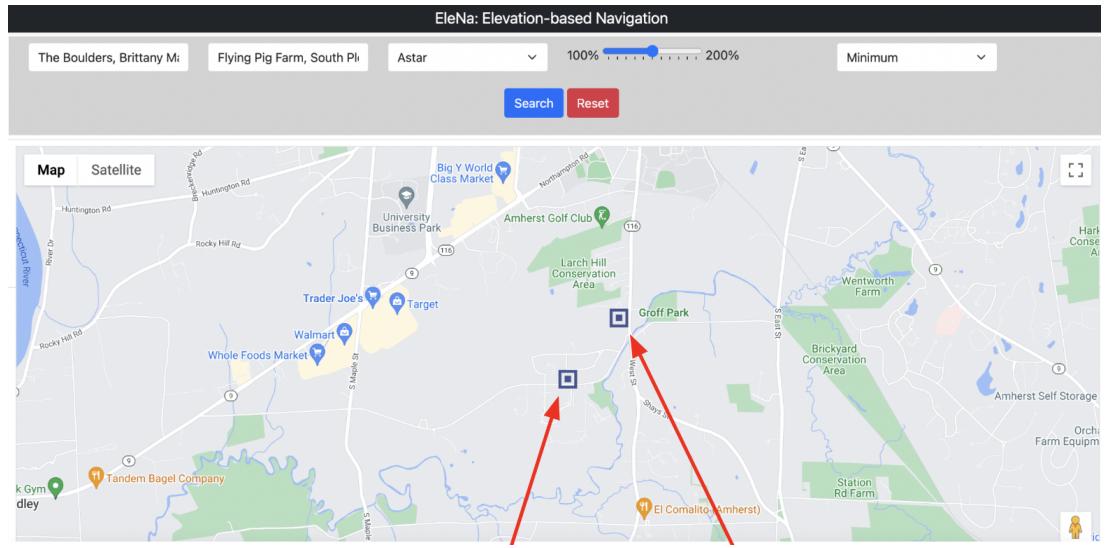


2. Display of markers

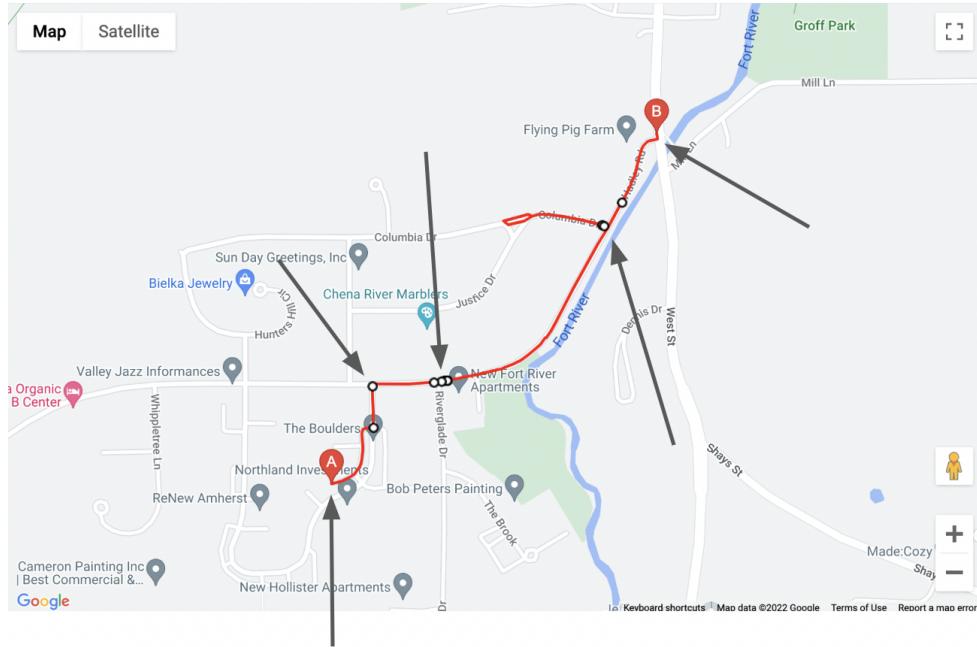
- Displaying source



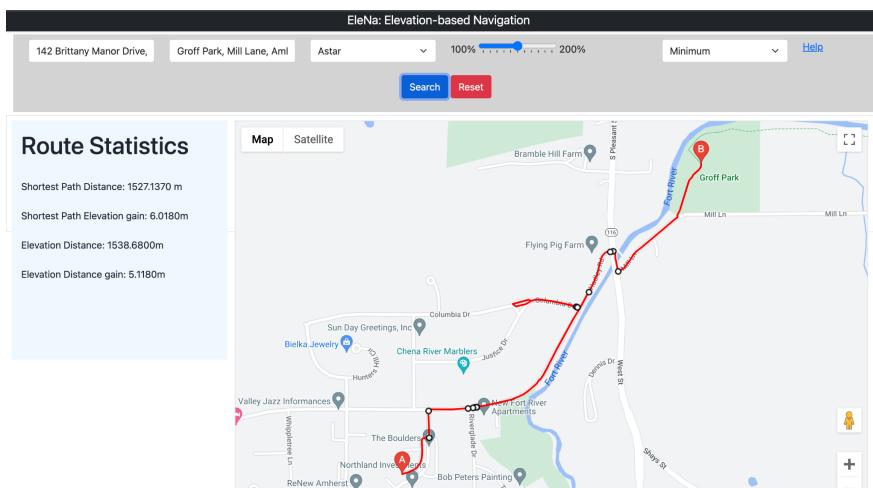
b. Displaying Source and Destination before searching the algorithm



c. After clicking search button, markers for start, end and in between points are displayed

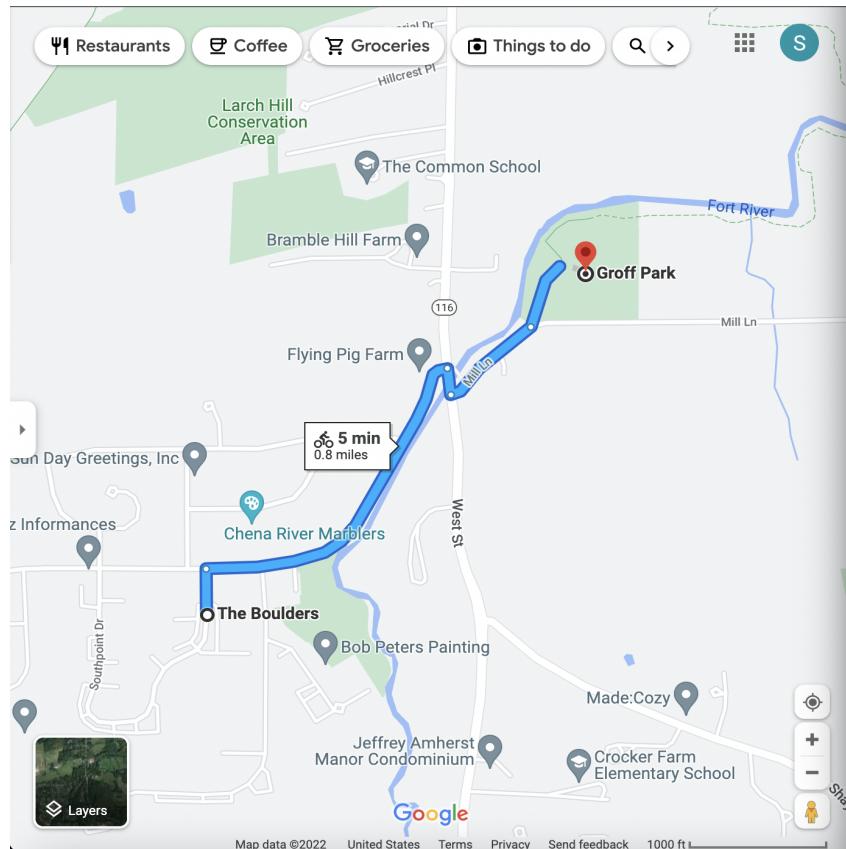


3. Route Display - The shortest path for the given inputs is displayed after clicking the search button.

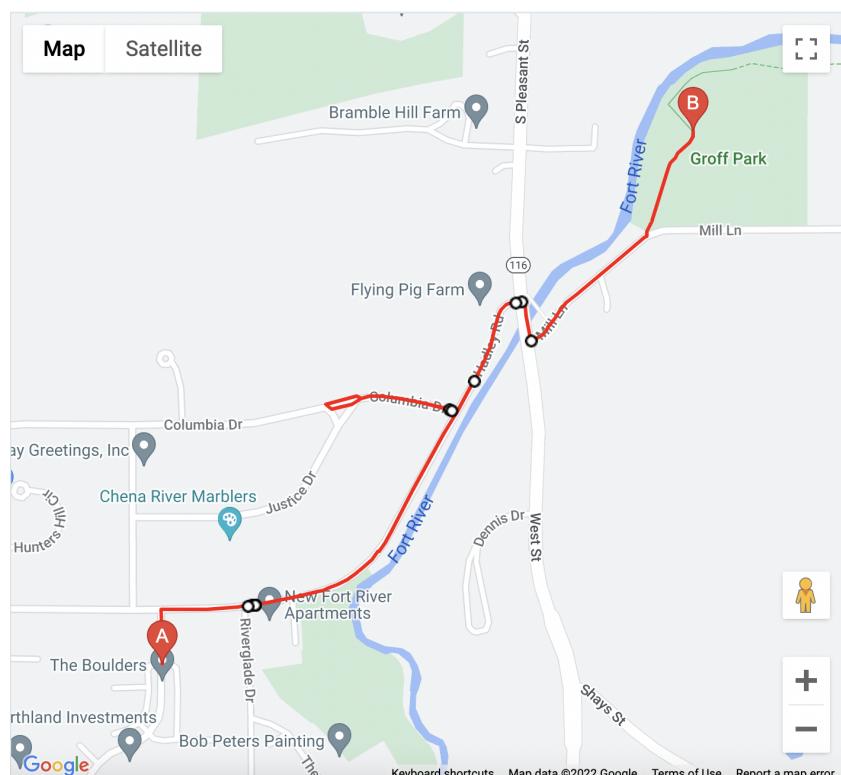


4. Difference between the normal path and elevated path for the same source and destination

a. Normal route



b. Elevated Route



5. Route statistics display:

Route Statistics

Shortest Path Distance: 1527.1370 m

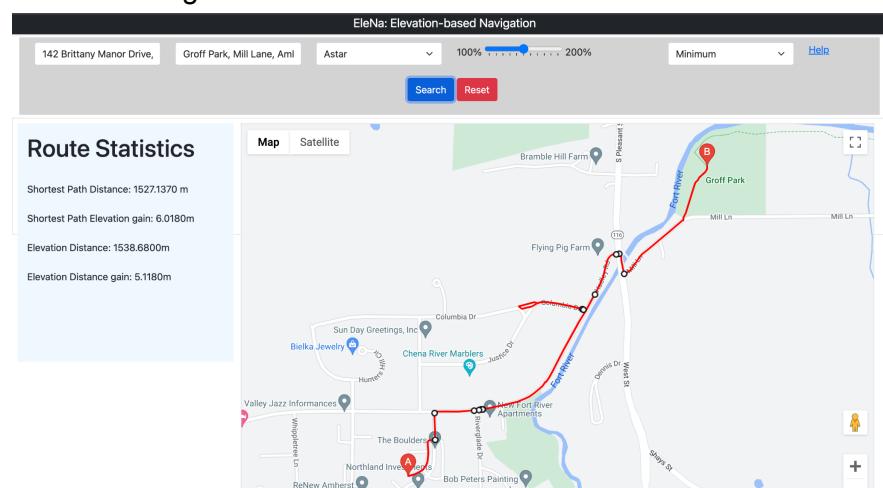
Shortest Path Elevation gain: 6.0180m

Elevation Distance: 1538.6800m

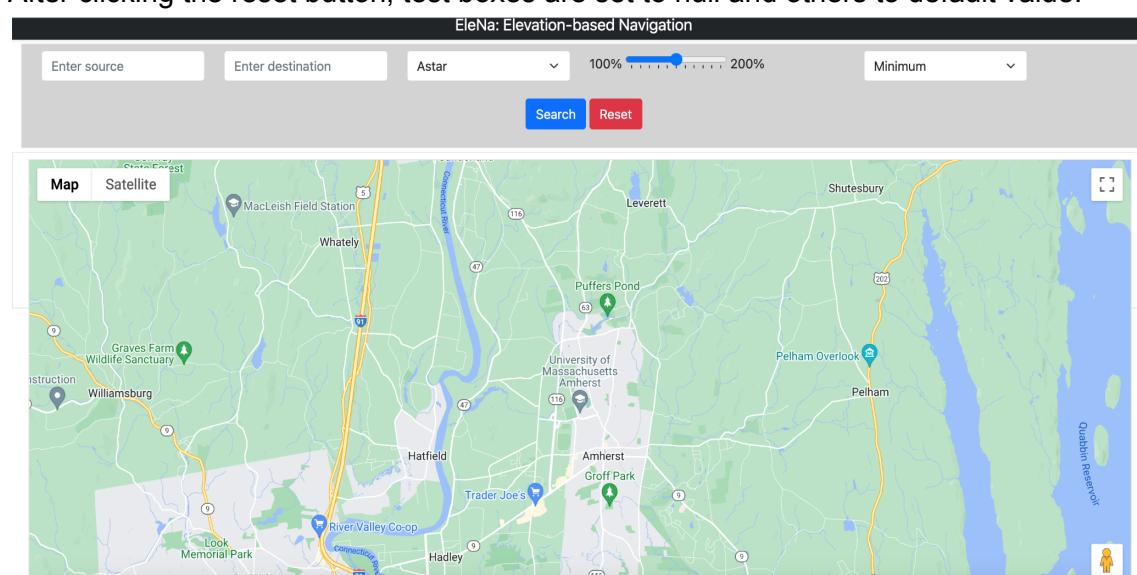
Elevation Distance gain: 5.1180m

6. Reset button:

a. Before clicking the reset button:

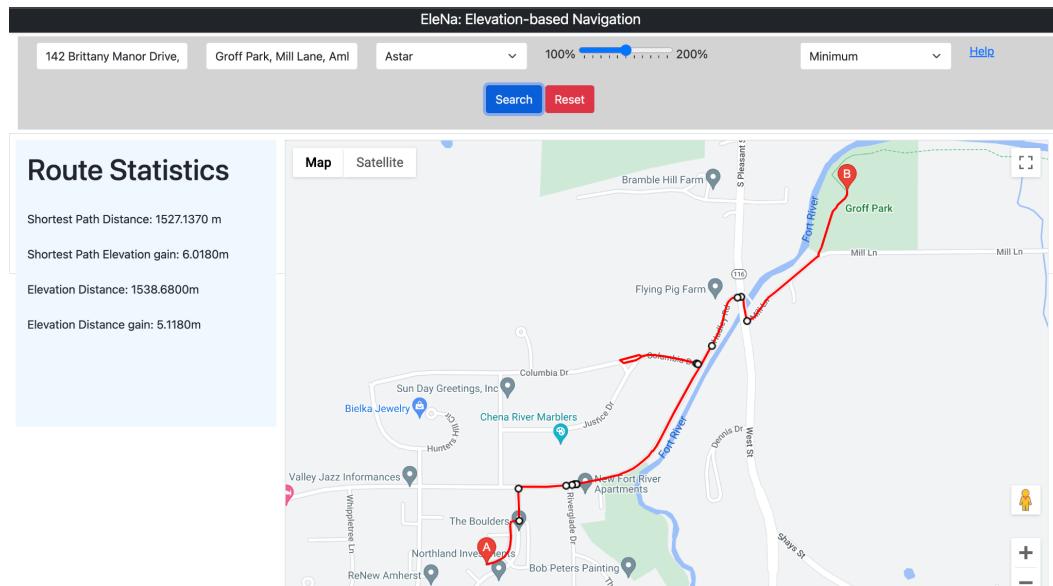


b. After clicking the reset button, test boxes are set to null and others to default value:

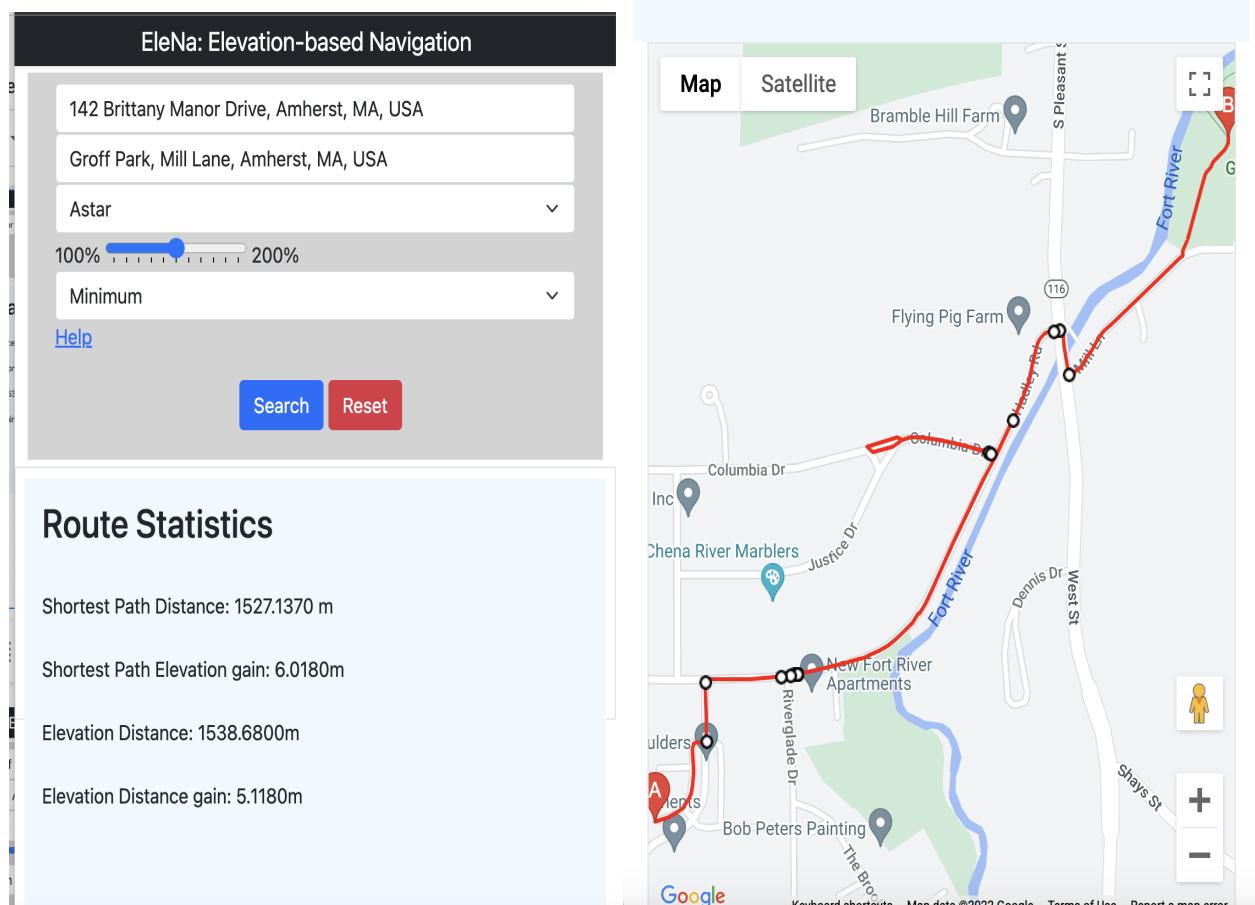


7. Size: The UI is responsive

a. Full window



b. After reducing the size of the window, all the attributes are set according to the size.



- User Acceptance Testing

The interface and functions were tested by the real time users and they provided the following feedbacks -

Feedback 1 - A help button might be useful to understand how the software works.

Solution - To solve this problem we added a help link on the UI which gives information about the fields and steps to use the software.

Feedback 2 - Having both the routes is confusing.

Solution - Initially we were displaying both the normal route as well as elevated route using different colors but it was confusing to the users. Thus we restricted the Software to just display the elevated route.

Feedback 3 - After changing the source or destination, two different routes were being displayed.

Solution - Changing only the source or destination was displaying both the previous as well as a new route. We solved this by resetting the map to show only the new route.

Feedback 4 - The color of the UI is too dark.

Solution - The previous (blue color) at the background was too dark. We change it to gray color.

Feedback 5 - The user was able to see double markers for starting and ending locations

Solution - This was due to the reason that there is not always a route from locations entered. Thus Google maps api takes the nearest location for showing the markers which are valid points for the route. Solution was to reset the markers when showing the route to avoid confusion.