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From: Chasing FOX

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Summary
- For the algorithm part, the risk score was scaled by 0 to 10.
- For the back-end part, the Flask API was updated to run the data analysis code using the os.system() method.
- For the front-end part, the Navigation function has been developed. and the overall UI/UX design has also been improved.
- For the paper, feedback was reflected and revised.
- For the presentation, script and PPT slides was made.

What Chasing FOX completed this week:
- **Data analysis**
  - Data analysis part was completed in week11.

- **Algorithm**
  - The figure of the four recommended routes was drawn for the paper.
  - In the process of passing the total risk score to the application, to compare the risk score of the routes absolutely, the risk score was scaled from 0 to 10 using the MinMax Scaler. The training set was the risk scores in every edge in Chicago, and the test set was the (number of edges/risk score of the route) from the route.
  - Algorithm part is complete.

- **Back-end**
  - The Flask API was updated to run the data analysis python code. By using the os.system() method, a terminal was used to run this code in apache2.
  - In the Flask API, considering when the number of waypoints is under 9 because the distance between the origin and the destination is too short, the code was updated to return the waypoints without an apache2 error.
  - Back-end part is complete.

- **Front-end**
  - Added navigation button functionality to route recommendation page.
  - When each route button was clicked, the error that the path was not drawn on the map was resolved.
  - The color of the route has been changed to make it more visible.
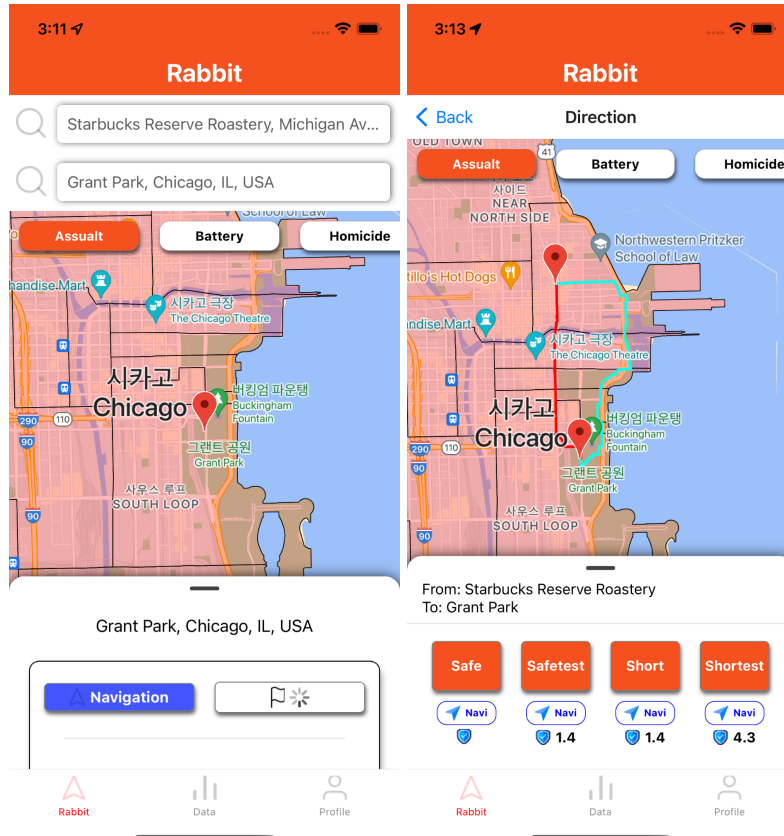 - The UX/UI design of the application has been improved overall.

Figure 1. Input page   **Figure2. Route searching page**

- **Paper**
  - Minji's feedback was reflected in the paper.
  - Whole paper was read and revised.

- **Presentation**
  - Each part of the paper was assigned to a member for presentation.
  - Each part of the script and PPT slide was made and revised.

Things to do by next week
- For the front-end, The app development will be completed with the process of configuring the icon and splash screen of the application.
- The presentation will be prepared including the execution video..
- The Q&A session will be prepared.
- The final paper will be revised.

Problems or challenges:
- For the front-end, When it took a long time to receive a request from the back-end server, there were difficulties improving the user's experience. For example, when a user modifies a profile the ability to request a route 30 minutes later.

References