

# App Description Document

Team 6

Alec Brinker, Jordan Gunning, Thomas Carey, Jade Wang, Elizabeth Van Elsen, Jesse Hassell,  
Lucille Kreuer

## App Idea:

A GPS-based trip-tracker that civil engineering students can use to record their path for the use of traffic data. Students select a mode (walk, drive, etc), while the app samples the GPS position at specific points along their path. The data is then compiled into a CSV format for ease of analysis.

## Users:

Moderators (Grad Students & Instructor)  
Student (All other users, expected to be traffic engineers)

## App Usage:

User opens the app, logs in, starts a new trip, and selects a mode of transportation. The user then selects “start”, and the app begins tracking their position along whichever path they take. After their journey is finished, the app compiles their data into a readable CSV format.

Users also have the ability to view previous trips they have taken using the app.

The “moderator” user account is able to check the app and download student data from individual trips in the compiled readable CSV files.

## Views:

- Login/Create Account page
- Home page
  - Edit profile information
  - Start new trip
  - View previous trips
- Trip start page
- Trip Viewer
- Results Page
- Upload Page
- Trip History (for multiple trips)
- Select Date-range to download data (admin)

**Data:**

## Timestamps

- Device GPS coordinates (Latitude / Longitude)

- Speed (Derived or device speedometer)

- Time taken in trip in seconds (Max of 1 hour / 3600s)

  - All stored as floating point values

## Form data

- Origin and Destination names

- Mode of transportation

- Name, Email, Demographics

  - All stored as strings

**Anticipated Challenges:****Implementation**

- None of the group members have experience with the Geolocation API or Leafletjs, the tools we expect to use to access the users' positions and display a map of their trip

- The system will require several languages and components that will need to fit together perfectly

**Usability**

- The client has requested administrative access to the back end of the project. Depending on how this access is implemented and controlled, it could have a learning curve to guarantee it is safe and useful.