Stakeholders:

Primary stakeholders:

Kuilin Zhang - Client, primary administrator
Grad students - moderators
Traffic engineering undergraduate students - primary users

Secondary stakeholders:

Team 6 - Developers
Robert Pastel - instructor

User personas:

Platoon A Private First Class

Private Jim Swayer

Age: 21

Height: 6′ 2″

Weight: 180 lbs

Right handed

Joe is alert and strong. He generally follows orders but can also talk back to commanding officer. He does not shy away from a fight. He has above average intelligence. He is skilled as a marksman. He was raised in the UP, so is fond of hunting. He is single and corresponds with his family infrequently.

John Dingle

Age: 22

Height: 6’1”

Weight: 220 lbs

John is dependable but lazy, he’d rather be in bed than anywhere else. He has above average intelligence and likes to spend his free time playing video games.

Jane Dawson

Age: 20

Height: 5’2”

Weight: 130lbs

Jane is loud and boisterous, she spends most of her free time exploring the outdoors. She’s a Wisconsin native but has spent a fair bit of her life exploring the UP.

Mary Donaldson:

Age: 22

Height: 5’7”

Weight: 150lbs

Mary is quiet and reserved, you can find her most often reading a book. She prefers fiction most of all, her favorite book series as a child was the Percy Jackson series.

Mark Chatham

Age: 23

Height: 5’10”

Weight: 230lbs

Mark is unpredictable, you never know what he’s going to do in a given moment. He enjoys cooking and thinks himself to be quite the chef.

Environment descriptions
:

Users will enter information at trip origins, which could be any location in the greater Houghton area. After beginning a trip, they will travel (by foot, bike, or car) to a different location with the app running in the background. Upon reaching their destination, they will directly access the app again to finish the trip.

Use scenarios:

-user logs in, starts a trip, completes it, uploads data, admin downloads trip

When a user is about to leave for a period of time for travel, they remember to log in to TripTracker to log the path taken. When they begin the trip and later finish it, the data is uploaded so that the user and admin can view or download the resulting data to determine the exact path taken, given that there were no interruptions in the trip.

-user logs in, views their previous trips

A user can log in to TripTracker with their account credentials with the intent to view previous trips they have taken. They open individual files which showcase a detailed view of the path they had taken on that particular trip.

-admin logs in, selects a large range of trips, downloads them all

An admin user logs into the database that houses data from the TripTracker application. They navigate through and select a subset of trips and choose to download them to their personal device to review and inspect.

-user logs in, starts a trip, completes it, forgets to indicate to the app that the trip is over. App continues collecting data until hard cutoff point, and the admin deletes the erroneous trip

A user logs in to Trip tracker and indicates that they would like to start a trip. The user completes the trip, but does not signal to the server that the user had completed the trip. The app continues to collect data from the user until the trip is automatically ended when passing a set maximum of time. The admin later logs on and, through inspecting the trip and noticing the lack of useful data in a section of the trip, proceeds to delete the trip from the database.

Simplified hierarchical task interaction:

- Users can create accounts and log in
    - Username/password form
    - Login button
    - Create account button
- Personal information is tracked by account
- Users can record trips
    - Trip start page
        - Origin/Destination form
        - Mode dropdown
    - Current trip page
        - Timer?
        - Display current location on map
- Users can view their trip history
    - Trip end page
        - Origin/Destination shown
        - Time of trip
        - Mode Taken
    - Trip history page
        - Download trips
- Admins can view all students' trip histories
    - Sort/Filter
    - Download trips

Database schema:

List of Domain Classes:

- Personal - List of students personal info (name, email, id)
- Trip_logging - List of trip information/history
- Transportation - List of modes of transportation/Destinations/Origins

Domain Class: Personal - List of students personal info

- ID - Int, unique student id
- Name - String, students name
- Email - String, students email

Domain Class: Transportation - List of modes of transportation/Destinations/Origins

- Type - String, transportation type
- Locations - String, List of Trip origins/destinations

TABLE: Trip_Logging - List of trip information/history

- Start - String, Origin point of trip
- End - String, Destination of trip
- Time - Time, Time calculation of how long trip took
- Date - Date, Date of trip
- Distance - Int, Calculated distance of trip
- StudentID - Int, unique student Id of who took the trip (for joining)
- TripID - Int, unique trip ID