Team 17 Project Charter

Team Members:
Steven Bass, Luke Irons, Logan Sweeney, William White, Austin Wilson

Project Title: Rout

Problem Statement:
While Google Maps does allow for navigation from point A to point B, it does not calculate efficient routes from point A back to point A. Rout allows users to find new routes for running, biking, or even just walking. Users can prioritize routes based on distance, time, or hazards, and save favorite routes for future use.

Project Objectives:
- Build an app that allows users to choose between different running/biking routes.
- Port app functionality to a public website and smartwatch hardware.
- Implement a system that generates different routes based on various factors such as distance, time, and hazards.
- Generate directions for users to follow along the route, supported with live tracking and Google street view images.
- Track and store statistics for users to monitor progress.

Stakeholders:
Users: People looking to create running and biking routes that will start and end at the same location.
Developers: Steven Bass, Luke Irons, Logan Sweeney, William White, Austin Wilson
Project Manager: Siddharth Dhar
Project Owners: Steven Bass, Luke Irons, Logan Sweeney, William White, Austin Wilson

Deliverables:
- Front end Android/web application which allows users to request running/biking routes based on distance or time with a given pace.
    - Features to avoid hazards (i.e: traffic lights/road crossings, multiple successive turns, highways) or to prioritize different types of routes:
        - "Safe" routes near Emergency Call Boxes
        - "Scenic" routes near nature areas
        - "Hills" and "No Hills" for more or less hills
- Implementation of a pathfinding algorithm based on Google Maps API which produces cyclical routes.
- System for live GPS tracking of user progress towards route completion with real-time directions.