Problem Statements

1. Garmin widget does not provide some crucial information, such as:

- What are you doing? What mode of transport were you using? Where did you went? 

2. Participant forgot to turn on Garmin’s widget sometimes even when they move/travel to other places, which caused missing data.

3. If participant is in a vehicle, speed and distance is not recorded even with widget active.  

Key Features

**Phase 1:**

1. MOBILE: Record daily GPS trace.  
   2. MOBILE: Prompt for activity tag on usual location for such activities. (One-time short survey)  
   3. MOBILE: Add more frequent location  
   4. MOBILE: Login & Sign Up  
   5. MOBILE: Send data to researcher periodically.  
     
   **Phase 2:**6. MOBILE: Support integration with a 'light' user diary of user labels for the activities performed + modes of transport. (Each row has: Date, Start Time, End Time, Activity, Location - Select from map? Mode of Transport, Happiness scale, Comments.) (Read Diary, Write Diary, Edit Diary)  
   7. PC: Label significant places (e.g., work, home, school, shopping center, entertainment, etc.) and/or types of activities for these traces. - Checkout LANDGATE

**Phase 3:**

8. PC: Label modes of transport between locations (e.g., car, train, bike).

9. PC: Identify and log any anomalies in the data or missing values.

10. PC: Integrate the above streams into a dataset that can be output for research use & users.

Extra Features    
1. Display a labelled map of activities.

2. Display summary information about activities (e.g., time spend walking, calories used during activity)

3. Build a server for app for server-side user authentication.

4. Researcher gets real time update from users.

**IMPORTANT NOTE:**   
**The data gathered**for this project will be collected **by the students**themselves and**not used for research purposes**. The idea is to **develop software tools that could be deployed for a future project** with appropriate ethics approvals.