Smart Energy Project 1

# Team members:

* Prashanth Bala (pb)
* Jonathan Jan (jj)
* Swe Geng (sg)

# Project Plan

## 1st Week (week of 9th October)

* Definition of must-have functionalities (sg)
* Design & Mock-Up (sg)
  + First ideas about color scheme / logo
  + Mock-Up
  + Process / User story
* Back-End
  + Looking for libraries: Geo-Location & Speed (jj, pb)
  + Database «schema» and implementation (pb)
  + Implementation and first tests to get basic location and speed (pb)
* Research on Carbon Footprint (jj)

## 2nd Week (week of 16th October)

* Implementation of simple GUI: dashboard, alerts (sg, jj)
* Ideas of transport differentiation (jj)
* Implementation of transport differentiation (pb)

## 3rd Week (week of 23rd October)

* Further GUI Implementation: analytics, aggregation (sg, jj)
* Structure of report (jj, sg)
* Aggregation user data, Integration maps / further features? (pb)

## 4th Week (week of 30th October)

* Writing report (jj, sg)
* Preparation of presentation (sg, jj)
* Wrap up, debugging & testing (pb, jj, sg)
* Possibly implementation new flashy ideas?

## 5th Week (Deadline 7th November, presentation on 8th)

* Hand in code (all)
* Presentation in class (sg / jj)

# Must-Have Functionalities

### Front-End

* Energy usage & carbon emitted & time used in which means of travel
  + Display of current record (only time used in which means of travel)
  + Display of daily record
  + Display of weekly aggregate
  + Display of monthly aggregate
* Pages:

1. Starting Page: “Login” with Name
2. Dashboard: List with current time used and which means of travel
3. Display of daily, weekly and monthly aggregate with energy usage & carbon emitted

### Back-End

* Automatically infer user’s location
* Automatically infer user’s speed
* Distinguish user’s transportation means
* Track user’s distance / time
* Calculate carbon footprint / energy usage
* Save carbon footprint / energy usage and user data
* Aggregation of data

# Possible Additional Functionalities

* Show map and route with time and means of transport