Mobility Vocabulary Development

Requirements Document

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Functional Requirements

- The system allows the users to search for gas station.
- The system provides the choice of searching a gas station by selecting the specific town/city or postcode.
- It also allows the searching of a gas station related to the current position of the user.
  - It uses GPS to determine users' position.
- Another option of our system is searching by selecting the required fuel type/brand.
  - After the search(in every situation), it displays the gas stations, the opening hours of each gas station, the available payment types, the maximum height of the vehicle that can enter the station and the popularity of the station based on the rating of the customers.
  - It gives the opportunity to sort the results.
  - This can happen either by cheaper fuel price or by closer gas station.
- It displays the fuel transportation legacy rules, depending on which country the user is travelling, using GPS.
- It gives the opportunity to the user to compare two gas stations.
- It allows also to compare two cities in terms of fuel prices.
- Based on a predefined route, the system is able to filter the adjacent gas stations along its way.
  - After that it displays the gas stations along this route.
- It is possible for the user to rate any gas station which has visited.

- The system allows the users to search for battery station.
- The system provides the choice of searching a battery station by selecting the specific town/city or postcode.
- It allows the searching of a battery station related to the current position of the user and the minimum distance from it.
  - It uses GPS to determine users' position.
- The system provides the option to search a battery station depending on the plug type.
- The system provides the option to search a battery station depending on the voltage.
- The system provides the option to search a battery station depending on the Ampere.
  - After the search(in every situation), it displays the battery stations, the opening hours of each battery station, the available payment types, the maximum height of the vehicle that can enter the station and the popularity of the station based on the rating of the customers.
  - It gives the opportunity to sort the results.
  - This can happen either by cheaper price or by closer battery station.
- It gives the opportunity to the user to compare two battery stations.
- It allows also to compare two cities in terms of battery stations' prices.

- Based on a predefined route, the system is able to filter the adjacent battery stations along its way.
  - After that it displays the battery stations along this route.
- It is possible for the user to rate any battery station which has visited.

Non-Functional Requirements

- The system shall help the user to avoid making mistakes during the selection of fuel type/brand, electricity plugin, electrical vehicle's Ampere and voltage
- The system shall help the user to avoid making mistakes during entering geographical location.
- The system shall be used by people with no training, and possibly basic understanding of English.
- The system shall respond in less than 2 second for 90 percent of the interrogations.
- No response shall take longer than 5 seconds.
- The system shall achieve 99 percent uptime.
- The system is developed by using Apache Cordova.
- The system supports desktop solutions, web solutions and hand-held devices.

Open Issues

- Since we still don't know how we can access the fuel and electricity station database, our system's performance related functionality is not ready(For example: "The system shall update the fuel price change within approx. 5 minutes.", "No response shall take longer than 5 seconds."
- The system shall update the fuel price change within approx. 5 minutes.
- The system shall update the electricity price change within approx. 5 minutes