Software Requirements Specification

for

Car Charger

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The problem statement: Today's electric car world has been expanding and it seems that all of the major automobile companies are trying to get on this wagon. However, some of the companies don't know that car charging stations aren't common like gas stations. It is important for those people to know how far they have to drive to get to a location with charging stations. Also, a customer mainly a non-Tesla customer will be able to find a charging station on this app and calculate whether or not they will be able to make it without running out of charge.

1.2 Document Conventions

The conventions that are present in this document are that the font is Arial and the descriptions are italicized. The Headings and subheadings are bolded.

1.3 Intended Audience and Reading Suggestions

People with non-Tesla electric cars is what this document is intended for. So that they can locate charging stations that will suite their car and their needs. Read through the Overall Description to get more of an in depth understanding of the product and its services.

1.4 Product Scope

Product scope is to provide services to its users that will allow them to find the nearest car charging station in any nearby town/city. Non-Tesla users are preferred since they already have a good search system for their charging stations.

2. Overall Description

2.1 Product Perspective

<Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two. A simple diagram that shows the major components of the overall system, subsystem interconnections, and external interfaces can be helpful.>

The product will be available to utilize on phone app being able to locate the charging stations as you drive into a new city or town. Will not be like the regular phone GPS that can be deceiving, this app will actually direct you to where the chargers are actually.

2.2 Product Functions

The product has many functions as it is going to be used to find charging stations, some map implementations will be present as well as having the user enter the type of automobile they have and what types of charging stations they will be looking for.

2.3 User Classes and Characteristics

Users will be determined by who has an electric automobile and what types of charging ports they have for the app to better serve their needs. However, if the user is a gas automobile driver they might still want to use this to familiarize themselves with the product and what types of charging stations there are.

2.4 Operating Environment

<Describe the environment in which the software will operate, including the hardware platform, operating system and versions, and any other software components or applications with which it must peacefully coexist.>

Operating environment will be on a phone application, because the drivers will need to have that internet access on the go. Good signal and/or wifi is recommended.

2.5 Design and Implementation Constraints

Having enough storage on your phone to be able to download this app is something that could be constraining to some people who chose to have their phones full. Other than that there isn't many other constraints if the user has a smart phone.

2.6 User Documentation

As most phone applications the tutorial will be shown at the beginning when the user open the app up. It will give them examples on how to use the application.

3. External Interface Requirements

3.1 User Interfaces

The GUI will include the direction as to which the automobile is moving and ping locations that will be able to provide the charge for the electric car. Will have a search bar to input the location as to which the driver will be driving to. Dark mode will be implemented and will turn dark at night, or the user can always leave it permanently on dark mode or light mode if they so please.

3.2 Software Interfaces

Software interfaces that will be used are Flutter, Android Studio, etc.

3.3 Communications Interfaces

The interfaces that we as a team are using to communicate with one another is GitHub.

4. System Features

System features that will be included will help out a busy driver. Voice command navigation features will prevent mishaps on the road. Live transportation status and estimated time of arrival. Navigation app speedometers this feature will help out the driver if they forgot what the speed limit was on the road or street they were in.

4.1 Voice Command Navigation

4.1.1 Description and Priority

Drivers will have their hands occupied on the steering wheel so having a system that is able to have voice command navigation is of high priority. The benefits are boundless because this will prevent the people in the automobile and on the road from having an accident.

4.1.2 Stimulus/Response Sequences

As the users are utilizing this app they will notice that the app will learn more about how they drive and the stations that they visit the most. It will keep a record of the places it frequents the most.

5. Design

Will be on a separate file.