

SIT725 2.1P Writing a SRS document

1.Introduction

1.1 Document Purpose

"Locate a Socket" web application's functional and non-functional requirements are given in Software Requirements Specification (SRS) document. Software developers, testers, project managers, and other stakeholders who will work on this app's system's design, development, and maintenance are the target audience for this system.

1.2 Product Scope

A web-based application called "Locate a Socket" was developed to help locate the charging station for electric vehicles (EVs). Using our location-based services, this platform provides real-time EV station availability and allows safe charging payments. Enhancing the EV charging experience and larger EV adoption are the primary goals.

1.3 Document Overview

This document shows the software requirements for "Locate a Socket," including an overview of the system, functional and non-functional requirements.

Section 2: Details "Locate a Socket," including its functions, user characteristics, and constraints.

Section 3: Detailed requirements, including interfaces, functional, and non-functional requirements.

Section 4: Provides supporting information.

1.4 Definitions, Acronyms, and Abbreviations

- UI: User Interface
- API: Application Programming Interface
- EV: Electric Vehicle
- GPS: Global Positioning System

2. Overall Description

2.1 Product Perspective

The stand-alone web application "Locate a Socket" links to payment gateways and map services. It allows simple access to charging stations by serving as an agent between EV drivers and charging station operators.

2.2 Product Functions

"Locate a socket" provides the following core functionalities:

- User log-in and sign up
- Charging station based on user's location
- Filters such as price, type and availability

- Navigation to the charging station
- Secure payments
- User account management
- Reservations of charging stations

2.3 User Characteristics

EV drivers are users who will easily find and access charging stations. They should be able to use web and mobile applications with a basic level of technical knowledge.

Charging station owners are the ones who provide their charging stations details on the portal. To manage station availability and pricing, they require an average level of technical knowledge.

Administrators are the system operators as responsible for managing payments, users, and the overall functionality of the platform.

2.4 Constraints

Major web-browsing platforms (Chrome, Firefox, Safari, and Edge) must be supported.

PCI-DSS standards must be followed for safe payment transactions.

Real-time map services (such as google maps API) must be integrated.

Accessibility on smartphones and tablets needs mobile compatibility.

2.5 Assumptions and Dependencies

The application requires an internet connection to get real-time updates,.

Payment gateways such as PayPal and Stripe, will handle the processing of payments.

Charging station availability depends on the owner who provides the data.

3. Specific Requirements

3.1 External Interfaces

- **User interface: Responsive web-app design for desktop and mobile users**
- **Hardware interface: Should be compatible with modern web browsers and mobile devices**
- **Software interface: Integration with Google map's API and payment gateway**
- **Communication interface: HTTPS for secure data transmission**

3.2 Functional Requirements

- **User should be able to create account using google, facebook or Apple ID as well as with email and password**
- **User must be able to search the charging station**
- **User should find the charging station automatic nearby their location**
- **User should be able to use filters such as price, type and availability**
- **Payment must be carried out securely**
- **User should be able to reserve the charging station in advance**
- **User should be able to receive navigation guidance to charging stations**

3.3 Non-Functional Requirements

- System should return the search results in minimum time such as in 1 or 2 seconds
- All transactions and data should be protected securely and must be encrypted
- System should have availability of 99.999%
- The UI should be follow standard guidelines to ensure that user gets proper UI

4. Supporting Information

4.1 References

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