Software Requirement Specification (SRS)

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Contents

Version Description

Version Number	Description	Date Added
1.0	Initial draft	December 5, 2024
2.0	Initial draft	December 12, 2024

1 Introduction

1.1 Purpose of the Document

This document will in detail, explain how the functions of this application will perform.

- Metro Bike Share Real Time Web Application

1.2 Intended Audience

Main audience of this document are developers, testers, investors. This is organized by sections of user, software interfaces. This SRS Is organized by sections and includes divisions for each application pertaining to this SRS. For Developers it is important to understand software requirements, including programming languages and API's.

1.3 Overview of the Software

Web Application, allows for the bike pathing to be visualized and seen by the user. This will fetch data through the Metro API, so that safest pathing is made possible. As for android Application, it will be the Web but condensed so that it is ease of use and less taxing on cellular phones/their data. Making this ease of use will allow a bicycle to be more feasible, so that more Angelinos .

2 External Interface Requirements

2.1 User Interface

Users will be able to open the application and pick a destination within local Los Angeles for their bike pathing needs. It will show them the best route at discretion of the applications algorithm.

1. Metro Bike Share Real Time
   (a) Metro Bike Share real time data shall be used to used to create station markers on the map.
   (b) User Location button will prompt the user for their location.
   (c) Reset Map Button to relocate interface to user location

2.2 Software Interfaces

Most of the information will be fetched by the Metro API where users can receive active feed and adjust their bicycle according to the data presented by Metro and their API. The API being used will be the Metro's Bike Share Real time data displaying a map that will be referred to as a Metro Bike Share Real Time. This map will fetch geojson data from the Metro's Bike Share web app.

1. Metro Bike Share Real Time
   (a) Loading of the page will initiate an API call to the MBSRT data set.
   (b) Map induced by Javascript API will visualize data and create map features.

3 Legal and Ethical Considerations

3.1 Data Storage and Privacy

User data will be expelled as there is no current need to store any data. It is strictly a convenience application.

3.2 Legal/Ethical Issues

Possible legal ramifications arise from the possibility that users may still crash and then blame it on the applications pathing. However, there will be disclaimers before hand that let the user know, and prevent any legal action towards the application.

4 Glossary

Acronym	Definition
UI	User Interface
API	Application Programming Interface
MBSRT	Metro Bike Share Real Time
DB	Database
Javascript	A programming heavily used for web applications
Python	A general-purpose programming language that can be used to create web application and data analytics.

5 References

- Google Maps API - https://developers.google.com/maps/documentation/javascript/tutorial
- Jupyter Notebook - Data Organization and Manipulation