

Software Requirements Specification

for

Vehicle Actual Cost Per Mile Android Application

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

Software Requirements Specification for Vehicle Actual Cost Per Mile

1. Introduction

1. Purpose

This document has been produced to cover all of the requirements requested to be incorporated in the Vehicle Actual Cost Per Mile (VACPM) Application by the requestee: Professional Dynamics Incorporated and delivered by: N.O. Brainer Technologies. All named parties in this document certify that the terms specified in the document are accurate and legally binding

SRS Revision: 001 (Initial)

2. Document Conventions

Standard type face utilized is Times New Roman with various font sizes and Bold utilized to delineate between Main topics and subtopic areas.

3. Intended Audience and Reading Suggestions

This document has been developed for the purpose of directing and binding The CEO's, Management, Engineers, developers, and all other project personnel on the requirements agreed upon in the Development of the VACPM Application for Android backed systems. This document should be followed with a strict adherence to section 2 and all binding terms agreed to found there-in. Section –3 lists out the necessary system requirements this application must be capable of working on with section 4 and 5 laying out the required system features and requirements.

4. Product Scope

This application is meant to be a financial tool for aiding in the decision-making process concerning an individual's vehicle situation. It's meant to combine all of the costs for a vehicle decision on whether to purchase a new vehicle now or wait and keep the old one is what drove the idea of developing an application to calculate a true cost per mile average for operating a vehicle. It will allow the user to create and track multiple vehicles. This will be done through both a log and graph under 5 categories.

5. References

- Car Operating Cost Calculator
- Mileage Tracker, Vehicle Log & Fuel Economy Application
- Fuelio: Gas Log, Costs, Routes
- Ford Pass
- Drivvo – Car Management
- MileIQ: Mileage Tracker
- Truebill Budget Planner, Bill Tracker and Reminder
- RTO Vehicle Information App
- Financial Calculators

2. Overall Description

1. Product Perspective

This Application is being developed out of a need to aid the everyday vehicle owner in making sound financial decisions concerning their vehicle or possible purchase of a new one. This is done by showing all of the expenses an owner will have to deal with along with others that are not so obvious.

2. Product Functions

VACPM application will require functions for producing easy to understand cost analysis of a vehicle will require the following items.

- Vehicle(s) input
- Log style Database
- Data Graphing tool
- Miles Per Gallon/Miles Per Kilowatt
- Lease/Loan
- Maintenance
- Insurance
- Miscellaneous Expenses

3. User Classes and Characteristics

This product is intended to be utilized by all members of society capable of: driving a vehicle, owning an Android based platform, downloading an app, reading at the 10th grade level, and has a basic understanding of math and how it applies to their finances.

4. Operating Environment

Android based platform Pixel 2 API 30 or newer, with a Wi-Fi or internet capability for downloading the Application. The Platform must also have the capacity to store the related data inputted by the owner of the vehicle.

5. Design and Implementation Constraints

The following is a list of constraints this developmental process and application will face.

- Android Studio 2021.1.1 “Bumblebee”
- Android Platform restricted
- Platform based storage
- Restricted to Coding languages C++ and Java/Kotlin
- Not compatible with Desktop or Laptop computers

6. User Documentation

As of this point there will be no user manuals, guides or online support developed for this product. The only user support for this application will come in the form of company call support.

7. Assumptions and Dependencies

Calculator.net is set to be the only dependency required until after all features of the application have been fully developed and implemented. The only further type of dependency will come from app deployment sites for all downloads and sales.

3. External Interface Requirements

1. User Interfaces

The user interface required for this application is a touch screen Android platform. This is the only way to access the application on a device as it will need to be selected to open it. and then the application can utilize the tab down or arrow function Describe the logical characteristics of each interface between the software product and the users. The Subpages will incorporate touch screen arrow buttons to allow the user to navigate between and back to the Main page

2. Hardware Interfaces

The key hardware interface will be through a touch screen.

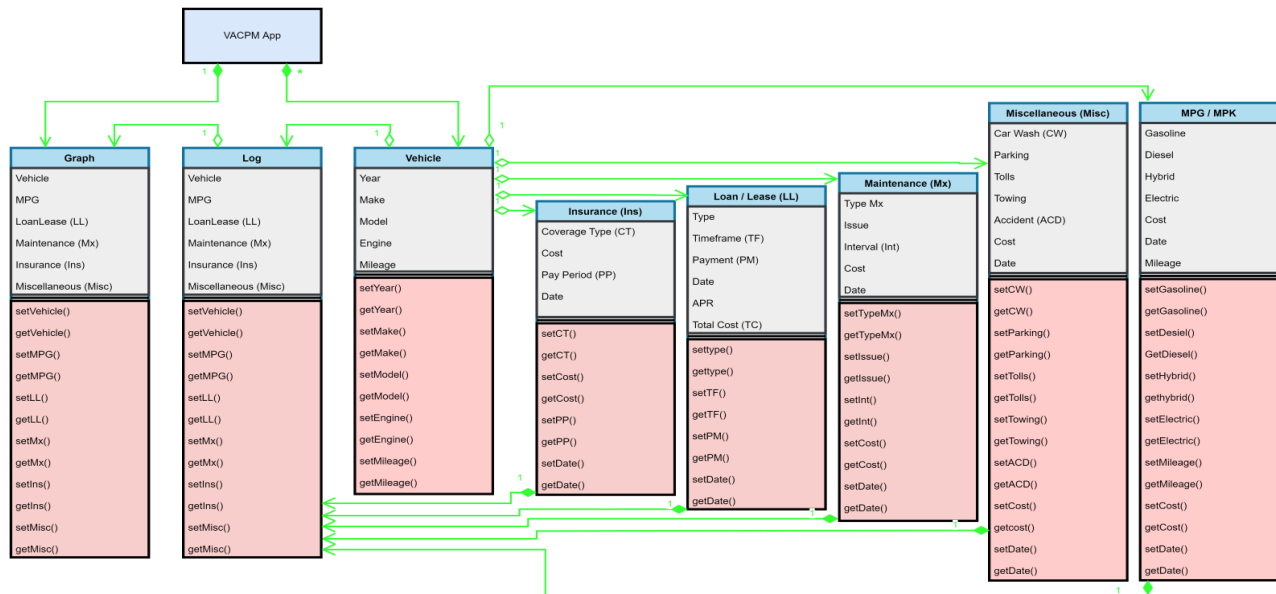
3. Software Interfaces

The application will be supported by a CSV fill for pulling up the selected vehicle information and one web linked site for calculating loan and lease information until we have built directly into our system.

4. Communications Interfaces

Download from the sites will be accomplished from a third-party source. Leaving our application not requiring any communication layouts until an update is required.

4. System Features



1. System Feature 1

4.1.1 Vehicle(s) Input

This is a Mandatory part of the main page and program as it first comes into play when you first start up the application when you first open it up. You can't proceed to utilize any other portion of the application until after a vehicle's information has been added to this section. This will be done through a spinner selection process from the (HIGH)

4.1.2 Vehicle Input log

This is a Mandatory part of the application as it gives the ability to save inputted data linked to any vehicle is a key point of this application. From this log the data will be visible to review or utilize through graphing and calculating the cost to own the vehicle. (HIGH)

4.1.3 Data Graphing Tool

This is a Mandatory part of the main page as the graph will incorporate data inputted for each vehicle to show the average cost of the vehicle depending on what information has been inputted by the user. (MEDIUM)

4.1.4 Miles Per Gallon/Miles Per Kilowatt

This is a Mandatory part of the application as it serves as a primary subpage for the application and is linked to any vehicle added to the database. It will allow the user to input the data required to gauge the amount of fuel or electricity utilized per mile, to include the day it was purchased. (High)

4.1.5 Insurance

This is a Mandatory part of the application as this subpage is designed to allow the user to input the information in regards to the cost of insurance paid for the vehicle along with the timeframe of the coverage and the date paid. (MEDIUM)

4.1.6 Loan/Lease

4.1.6.1 This is a Mandatory part of the application as this subpage is developed to give the user the capability to input the amount of their loan or lease. It will also hold the link to Calculator.net. (Medium)

4.1.6.2 This web site link will be replaced after the remaining functions of the site have been developed and fully tested in order to allow the focus to be properly directed to the key aspects of the app. (LOW)

4.1.7 Maintenance

This is a Mandatory part of the application as this subpage will be split into 2 main sections:

4.1.7.1 Scheduled – This section of the subpage will be laid out for inputting maintenance through a spinner dropdown menu. It will allow for cost and date to be entered in conjunction with the scheduled maintenance dropdown menu. (MEDIUM)

4.1.7.2 **Unscheduled** – This section of the subpage will be laid out for inputting maintenance through a text style box to allow the user to input any maintenance not listed in the scheduled maintenance section. It will allow for cost and date to be entered in conjunction with the scheduled maintenance data. (MEDIUM)

4.1.8 **Miscellaneous Expenses**

This will be the last page to be developed and allow the user the ability to add in any extra expenses not covered in the rest of the pages. It will have an embedded listing of examples to aid in some expenses a user may come across and want to list. (LOW)

5. Other Nonfunctional Requirements

1. Performance Requirements

Application does not have specified software performance requirements.

2. Safety Requirements

This application does not have any safety issues to be liable for.

3. Security Requirements

Security of a personal phone due to the possible loss of personal information goes in accordance with The Privacy Act of 1974 (**5 U.S.C. § 552a**).

4. Software Quality Attributes

Software quality attributes for this system are portability for it is being used only on Android mobile devices; reliability for its focused purpose; adaptability for it is able to resize to any Android screen.

5. Business Rules

Following the standards laid out in the SRS, and Domain model are essential for the development of the Application. Along with preventing loss of time and quality. However, the quality of our product will not come at the expense of time.

6. Other Requirements

No other requirements defined at this point.

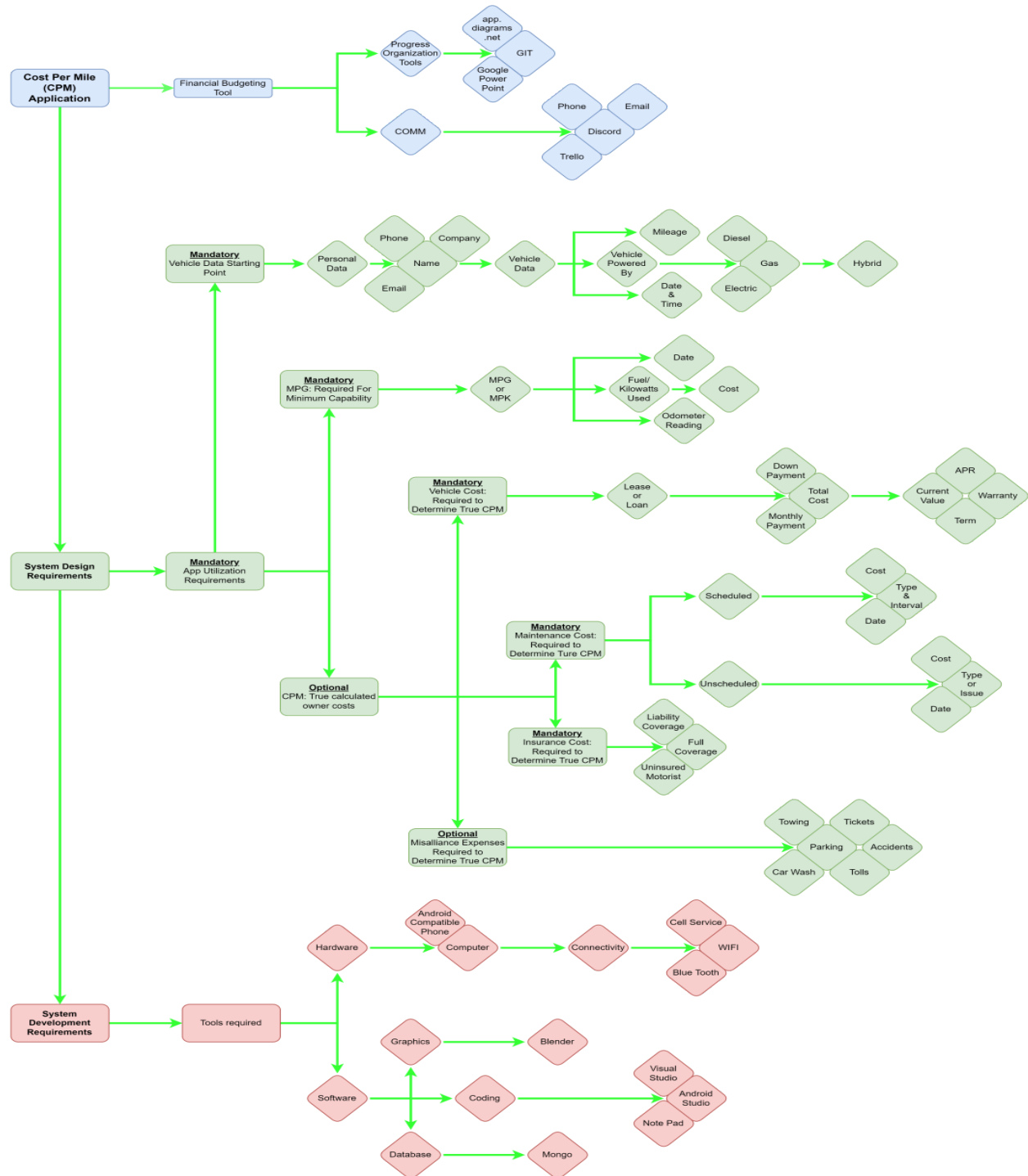
Appendix A: Glossary

HIGH – Level of importance for the program development is top priority and absolutely necessary

MEDIUM - Level of importance for the program development is Moderate

LOW – Level of importance for the program development is of mild importance to the Application

Appendix B: Analysis Models



Appendix C: To Be Determined List

<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>