**Software Requirements Specification Document for Black Book the Used Car Market Guide System**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to provide all the requirements for a Black Book program. Parts 1 and 2 are intended primarily for users of the Black Book program but will also be of interest to software engineers maintaining the software. Part 3 is intended primarily for software engineers but will also be of interest to users.

**1.2. Scope**

This document covers the requirements for a Black Book program. The purpose of this is to guide users in researching and learning how the scope of a Black Book program works and functions.

**1.3 Definitions, Acronyms, and Abbreviations**

**Car Manufacturer –** a business engaged in the manufacture of automobiles.

**Model Year –** motor vehicle manufacturer’s production period.

**Car Model –** isthe name used by a manufacturer to market a range of similar cars.

**Vehicle Identification Number –** is an identification code for a specific automobile.

**Body Style –** refers to the shape and model of an automobile make. Usually includes two-door coupes and convertibles, four-door sedans, hatchbacks, station wagons, minivans, sport utility vehicles and trucks.

**Value of a Car–** is the latest used car value.

**1.4 References**

Business Media, Hearst, editor. *Black Book*. Vol. 44, ser. 11, Hearst Business Media, 2018. Website https://www.hearst.com/other-assets/black-book.

**1.5 Overview**

Used Car Market Guide System Software requirements specification document will discuss all the requirements for the system to provide the user with the vehicle identification number (VIN), the body style and the latest used car value from what the user has selected in the system. This document will give process functions and diagrams for maintaining a manageable software for used car market guides. The document will cover the use cases and design constraints of the system.

**2. Overall Description**

This Black Book program is accessed on a Java program. The Java program Black Book will keep record of all manufactures of a used car, the year of a used car, the model of a used car, the vehicle identification number (VIN) of a used car, the body style of a used car, and the latest used car value. This system contains a search engine for used cars in the Black Book program database. Users can search the database by selecting the manufacturer of the used car, selecting the year of the used car, and selecting the model of the used car. Once the user has completed the main information the system needs to gather the right listing of vehicle identification numbers (VINs), of used cars, body styles of used cars, and the latest values of used cars it will then display an new screen showing these three listings based off the users selected choice. Also, will allow the user to add a new car to the database system, remove a car from the database system and update the search database system.

**2.1 Product Perspective**

The Black Book program is intended to help users with deciding on a used car based off the latest value. Also, can improve a used car dealer search in listing a used car with the best value price listed. It is also intended for a used car dealer to ensure that they know the latest listing value prices for used cars. The Black Book program is kept up to date every year with the latest used car values. The Black Book program is a way to be used by either a used car dealer or a potential used car owner to improve the efficiency of the user. The Used Car Market Guide provides away that the user selects a manufacturer for the used car of choice, a year of the used car, and a model of the used car that helps the user find the used car they are interested in through a database. The user will have access to several types of cars. And allow the user to be able to add a new car from the database, remove a car from the database and update a car from the database as well.

**2.1.1 Concept of Operations**

**Car Manufacturers of a Used Car -** The Black Book program keeps track of car manufacturers.

**Year of a Used Car -** The Black Book program keeps track of the year of cars.

**Model of a Used Car -** The Black Book program keeps track of car models.

**Vehicle Identification Number of a Used Car –** The Black Book program keeps track of all vehicle identification numbers on a car.

**Body Style of a Used Car –** The Black Book program keeps track of the different body styles of a car.

**Value of a Used Car –** The Black Book program keeps track of the latest car value.

**2.1.2 User Interface Concepts**

2.1.2.1

The user interface is designed to help the user have a more effective way of navigating the Black Book program.

**2.1.3 Hardware Interfaces**

The hardware interfaces include a monitor, a keyboard, and a mouse. Basically, the basic input devices and output devices.

**2.1.4 Software Interfaces**

The Black Book program can operate on a Jar file. The database will use the text files in the program. The language for the system will be Java programming language.

**2.1.5 Communication Interfaces**

None.

**2.1.6 Memory Constraints**

None.

**2.1.7 Operations**

The software developer will update the Black Book program.

**2.1.8 Site Adaptation Requirements**

None.

**2.2 Product Functions**

The functions of this Black Book program must result in providing a more effective way in finding used car values and keeping up to date with the latest used car values. Once this system manages those tasks then the Black Book program should be able to run smoothly and do frequent updates to the system.

**2.2.1 Initialize Use Case**

1. The user searches for a car based on the manufacturer, the year, and the model of a car.

2. The user starts the program.

3. The user ends the program.

4. The user chooses the “Update” option on the main screen.

5. The user chooses the “Add” option on the main screen.

6. The user chooses the “Remove” option on the main screen.

**2.3 User Characteristics**

The most users of this Black Book program would be for a used car dealer or a potential used car owner. The users can be anyone who would like to get more information on a used car. The Java programmer helps maintain the system. Both the car dealer and any potential used car owner will have more knowledge on the latest values of used cars.

**2.4 Constraints**

The car information must be stored in a database that is accessible by the system. Black Book program should have a secure system that must be compatible with the Internet applications. The Black Book program is running all day.

**2.5 Assumptions and Dependencies**

None.

**2.6 Apportioning of Requirements**

None.

**3. Detailed Requirements**

**3.1 External Interface Requirements**

**3.1.1 User Interfaces**

The main layout of the menu screen will be very simple and straight to the point.

The user will start at the main menu with a button to excess the user’s needs.

If the user chooses to “Start Now!” the Black Book program will take them to the Main Menu screen that will ask them to select a car manufacturer of the used car of their choice.

This design have been changed now the user will start at the a “Welcome to Black Book” Main Menu screen that will give them the options to search for a car, add a new car, remove a car, or update a car.

Once the user selects a car manufacturer of the used car of their choice. A screen will appear that will ask them to select a year of the used car of their choice. If the user chooses to go back and change the Manufacture of the used car. There will be a “Go back to Manufacture” button at the bottom right corner of the page.

Once the user selects the year of the used car of their choice. Another screen will appear that will ask them to select a model of the used car of their choice. If the user chooses to go back and change the Year. There will be a “Go back to Year” button at the bottom right corner of the page.

This design have been changed once the user press the search button on the main menu screen and from there the user selects a car manufacturer of the used car of their choice, the user selects the year of the used car of their choice, and the user selects the model of the used car of their choice.

When the user has selected the three selections that the system needs in order to proceed in the search for the users results. Black Book program will display an output based on the user’s selections, the results of the used car vehicle identification number, the body style, and the latest value of the used car of choice. If the user would like to go back and change the Model of the used car. There will be a “Go back to Model” button at the bottom left corner of the page. If the user chooses to go back to the Main Menu there will be a Main Menu button at the bottom right corner of the page.

This design has been changed when the user has selected the three selections that the system needs in order to proceed in the search for the users results. The Black Book program will display an output based on the user’s selections, the results of the used car vehicle identification number, the body style, and the latest value of the used car of choice. The user can either press the return button to return to the main menu or the user can press the exit button to exit the system with the option to press yes or no if they would like to close the system.

This design have been changed once the user press the add button on the main menu screen and from there the user will be able to enter the car manufacturer, year, model, vin, body style, and value to be added into the database. User will click once on any text box to activate the add button. User then presses the add button and receives a message notifying the user the car was added successfully. The user can press ok button or exit button to return to the add screen and then from there return to the main menu or exit from the system with the option to press yes or no if they would like to close the system.

This design has been changed once the user press the remove button on the main menu screen and from there the user will be able to enter the car year and vin to be removed from the database. User will click once on any text box to activate the remove button. User then presses the remove button and receives a message notifying the user the car was removed successfully. The user can press ok button or exit button to return to the add screen and then return to the main menu or exit from the system with the option to press yes or no if they would like to close the system.

This design have been changed once the user press the update button on the main menu screen and from there the user will be able to choose a car to update and enter the car manufacturer, year, model, vin, body style, and value to be updated to the database. User will click once on any text box to activate the update button. User then presses the update button and receives a message notifying the user the car was updated successfully. The user can press ok button or exit button to return to the add screen and then from there return to the main menu or exit from the system with the option to press yes or no if they would like to close the system with the option to press yes or no if they would like to close the system.

**3.1.2 Hardware Interfaces**

The Black Book program will have to indicate when the user selects a manufacture, year, or model of a used car. Or any other tab in the Black Book program. Hardware interfaces include a monitor, a keyboard, and a mouse. Basically, the basic input devices and output devices.

**3.1.3 Software Interfaces**

The Black Book program can operate on a Jar file. The database will use the text files in the program. The language for the system will be Java programming language.

**3.1.4 Communication Interfaces**

None.

**3.2 Detailed Requirements by Category**

**3.2.1.2 Functions**

**Functional Requirements**

System allows the user to search for a car based on the manufacturer, the year, and the model of a car.

System should display a list of the cars which satisfies the search criteria.

System display should include the VIN, body style, and the value of the car.

System should allow the user to update and enter new entry into the database.

System should allow the user to add new entry into the database.

System should allow the user to remove old entry into the database.

System to allow the user to select a “Car Manufacturer”.

System to allow the user to select a “Car Year”.

System to allow the user to select a “Car Model”.

**Nonfunctional Requirements**

Not needed.

**3.3 Performance Requirements**

The Black Book program should load and display the initial image within a second. The Used Market Guide System will do manual updates for the system.

**3.4 Design Constraints**

None.

**3.5 Software System Attributes**

This software system will be written in a Java program.

The availability of the software system is easy and for everyone.

The results of the functional requirements are vivid and accurate.

The process of the software system may be flexible, and the reports can be given in many ways.

After developing the Black Book program if any errors occur then it can be easily maintained by the software developer of the system.

The performance of the software is better which will increase the reliability of the software. The reliability of the software system will be determined by if performance of the software system is better.

The information and records will be saved into the Black Book program database and reprocessed if desired.

This software system will be tested frequently.

This software system is very easy to perform any task.

For the productivity of the software system it shall give results accurately.