Software Requirements Specification

For

**Car purchasing web application**

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**Update History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Bossy Shafey | 29-4-2019 | Illustrate customer requirements | version 1 |
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# Introduction

## Purpose

The online purchasing car is intended to provide complete solutions for customers who want to buy cars through a single gateway using the internet. It will enable the customer to browse through the online web application and purchase one car or more online without having to visit the car dealership physically. The administration module will enable a system administrator to add, delete and update the users and cars data.

This document is meant to discuss the features of online car purchasing web application, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

## Intended Audience and Reading Suggestions

This document could be reference for developers, project managers, marketing staff, users, testers, product owner, and documentation writers.

## Product Scope

This platform will host an enormous database of cars enabling the sellers to advertise and market their cars and to help the buyers to search for desired cars also users can buy car or more through online car purchasing web application.

## References

IEEE 830-1999 standard for writing SRS document.

# Overall Description

## Product Perspective

The online purchasing car web application is aimed to achieve the highest selling in the world of cars, and also facilitates the user needs. The online purchasing car dealership should be user-friendly, ‘quick to learn’ and reliable software for the above purpose. It is intended to be a stand-alone product and should not depend on the availability of other software. It should run on both UNIX and Windows based platform.

## Product Functions

Role 1: Administrator

Functions: Admin shall log in with valid account and he/she can remove a car from search page after 24 hours from reservation page if it is confirmed to be bought, also Admin can add, delete, and view users’ data.

Role 2: Customer

Functions: the user shall register in the online car purchasing , log in , view all cars in the application , search in the application based on different criteria ,browse through application and reserve a car or more.at the end the user can log out from this web application, any user can see most popular cars in the homepage without registration or login.

## User Classes and Characteristics

The customer shall be familiar with using the internet and online shopping, the administrator shall illustrate the rules of buying through the application.

## Operating Environment

The online purchasing car dealership is a website that shall operate in all popular browsers, like chrome, Internet explorer and Firefox.

# External Interface Requirements

## User Interfaces

The customer interface shall be contain login page, registration page, contact us, reservation page, the home page contains scrollable list of cars and search bar, about us page contains information about car web application.

The car description should contains the model year, Engine CC, color, gear transmission, condition (new or used), Kilometers (for used cars) and Price

## Software Interfaces

In this phase there is no interaction between this application and other application

## Communications Interfaces

The user shall registered by email and phone the communication between the customer and the responsible of the car web application will be through email or phone.

# System Features

The car purchasing application tailored to be web based application which help the user to access the system without specific tools or programs only just popular web browser.

The system will help the users to get any required information about any car model, the system contains several models with several colors and price list.

## Functional Requirements

**Customers**:

* + 1. **Registration**

Registration functionality is on a page which contains a form this form has six fields (unique username, password, password confirmation, phone, email and address) the user shall register in the application those mentioned data.

|  |  |  |  |
| --- | --- | --- | --- |
| **Car\_SRS\_ID** | **Requirement** | **Related CR** | **Related SIQ** |
| Car\_SRS\_001 | The user can register using (username, address, email, phone number password, and confirmation password). | CAR\_CR\_01 | Car\_SIQ\_04 |
| Car\_SRS\_002 | The username shall be unique user name for every user. | CAR\_CR\_01 | Car\_SIQ\_02 |
| Car\_SRS\_003 | Password constraints contains (upper & lower case, numbers, special characters, and more than 8 characters). | CAR\_CR\_01 | Car\_SIQ\_03 |
| Car\_SRS\_004 | Unregistered users cannot reserve any car | CAR\_CR\_01 | Car\_SIQ\_08 |
| Car\_SRS\_005 | If the user tries to register with used email, an error message will appear in red color as following (This email is already used. Please try again) | Car\_CR\_01 | Car\_SIQ\_18 |
| Car\_SRS\_006 | If the user enter invalid password, less than 8 characters an error message in red color will appear “This is invalid password the password shall be at least 8 characters” | Car\_CR\_01 | Car\_SIQ\_16 |
| Car\_SRS\_007 | If the user tries to sign up without entering one or more data fields, an error message will appear in red color as following(all fields are mandatory please enter valid data) | Car\_CR\_01 | Car\_SIQ\_20 |
| Car\_SRS\_008 | The landing page has a list of free cars sorted by most popular car | Car\_CR\_01 | Cr\_SIQ\_09 |
| Car\_SRS\_009 | Unregistered users can see our products and search for cars | Car\_CR\_01 | Car\_SIQ\_08 |
| Car\_SRS\_010 | If the user tries to register with used username, an error message in red color will appear as following "This username is already taken. Please try again" | Car\_CR\_01 | Car\_SIQ\_17 |

## Log in

The customer shall be registered and have a valid username and valid password, log in function has a very high priority if the customer want to reserve a car.

**4.1.3 Searching**

The customer can search in the application search bar based on different criteria as listed

1. Search criteria filter for car color. [Car\_SYS\_04]
2. Search criteria filter for car model.[Car\_SYS\_05]
3. Search criteria filter for car price from high to low. [Car\_SYS\_06]
4. Search criteria filter for car price from low to high. [Car\_SYS\_07]

The search result shall be for not reserved cars only. [Car\_SYS\_08]

**4.1.3 Reserving a car**

The customer can reserve a car from the application ,then the status of the car changed from available to reserved and this car should be removed from the search for 24 hours until the customer confirm buying it,reservation tap shall changed car status from free to reserved and removed from search page. [Car\_SYS\_12],[Car\_SYS\_14],[Car\_SYS\_13]

**4.1.4 More details**

when the user hovers over the car, it shall expand to unveil the car description and a button for more should be provided and by clicking on it, it will direct the user to another page displays the car detailed specification. [Car\_SYS\_21],[Car\_SYS\_27]

**4.1.5 Log out**

The customer can logout from the application after searching or purchasing a car by pressing on the logout button.[Car\_SYS\_30]

**Administrator:**

**4.2.1 Log in**

The admin must login with admin credentials , the username and password for admin must be unique. [Car\_SYS\_30]

**4.2.2. Change car status**

Admin can remove a car from search page after 24 hours if it is confirmed to be bought. [Car\_SYS\_18]

All the reserved/sold cars shall be appear in the admin search page with their associated users and the time of the reservation/buy.[Car\_SYS\_32]

**4.2.3 Add Customer**

Admin can add unregistered user from the admin panel control [Car\_SYS\_15]

**4.2.4 Delete customer**

Admin can delete customer from the web application from the admin panel control [Car\_SYS\_16]

**4.2.5 View Customers**

Admin can view all registered customer from the admin panel control [Car\_SYS\_17]

**4.2.6 Remove car from search**

Admin can remove car from search after selling it.[Car\_SYS\_14]

# Nonfunctional Requirements

## Performance Requirements

The system shall accommodate high number of items and users without any fault.

Responses to view information shall take

* Response time = 10 second [Car\_SYS\_38] ,and Transaction per second = 500 Tps [Car\_SYS\_39]

## Safety Requirements

System use shall not cause any harm to human users.

## Security Requirements

Out of scope*.*

## Software Quality Attributes

A very little knowledge and techniques are applied to ensure software quality attributes ,quality characteristics for this product will be important to the customers and developers. Some to consider are: adaptability, availability, correctness, flexibility, maintainability, portability, reliability, reusability, robustness, testability, and usability. these techniques should be applied on the requirements and implementation of the requirements