# Rabbeshly Station

# Software Requirements Specification

V0.3

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# Table of Contents

*The introduction to the Software Requirement Specification (SRS) document should provide an overview of the complete SRS document. While writing this document please remember that this document should contain all of the information needed by a software engineer to adequately design and implement the software product described by the requirements listed in this document. (Note: the following subsection annotates are largely taken from the IEEE Guide to SRS).*

A well-rounded E.R.P and Marketplace system, that provides various services to the car industry and users in Libya. Everyday-drivers, Mechanics, Shops-Owners, Scrapyards and the government, all will benefit from the variety of services the system will provide.

# 1. Products/Scope:

1.1 **Car Station:** A platform dedicated for all users to maintain and showcase their car

1.1.1 **Car Profile:** Functionality to help <users> save their car information and data

1.1.2 **Suggestions and tips** of the <owners> car to help maintain the cars value condition, including but not limited to: 'Regular Maintenance reminders'.

1.1.3 **Car-Station Feed:** a social platform that allows <users> to post and share news about their beloved cars and astonishing specs.

1.2 **Shop Station:** A P.O.S tool to help <shop-owners> run their businesses, maintain their storage, sales, purchases and staff

1.2.1 **Shop Profile:** Online sales tool to help increase the businesses exposure and sales

1.2.2 **A.I-driven Assistant:** Sales and Purchases help tool to aid the <shop-owner> make better decisions, hence improve profitability.

1.2.3 **Online/On-site Management tools:** set of functionalities to help the owner and employees run the business smoothly, including:- Online storage of sales data, employees accounts, storage smart display, sales/profits display, employee performance measurement, and more.

1.3 **Workshop Station:** E.R.P and P.O.S system to manage the workflow of technicians and workshop employees

1.3.1 **Workshop Profile:** Online sales tool to help increase the businesses exposure and sales by presenting the workshop specialties and work history.

1.3.2 **A.I-driven Assistant:** Sales and Purchases help tool to aid the <workshop-owner> and <workshop-technicians>make better decisions regarding what parts to pre-order, what cars to avoid, hence increase profitability.

1.3.3 **Online/On-site Management tools:** a set of tools to help technicians, employees and owner to ease the workflow and work more accurately, such as: adding the cars to be worked on, giving a time estimate to the customer to finish fixing the car, measuring the workers performance, and more.

1.4 **Marketplace:** Scroll-able customize-able feed with the systems various car, workshops, scrapyards, advertisements. Helps all Car-Owners and Business-Owners buy and sell, showcase and post, about their products, services and unique merchandise.

1.5 **Service Station:** The Central system that connects all services together.

1.5.1 When the Car-Owner needs his car repaired he simply can view the workshops nearby that specializes or have worked before on similar cars, or fixed similar issues.

1.5.2 Connects Business together, when the car to be fixed reaches the workshop the car owner has chosen, the mechanics/employee of the workshop can order parts for it from any nearby shop/scrapyard that sells the part.

1.6 **Data Station:** The central system that stores and manages all of basic data / operations, A.I smart data, Statistical Data, of business, cars and costume inquiries, alongside scrapping the web for similar items across FB, Ebay and other websites.

1.6.1 Offers the opportunity to gain a leading edge on competitors and other importers by providing information regarding specific matters of the market.

1.6.2 Point of Access to government entities to get data about specific vehicles/businesses and its history of work, to help empower justice and order.

1.7 **Lux Station:**

## 2. Audience segments:

2.1. **Owners:** Car Owners, Shop Owners, Workshop Owners, Scrapyard Owners

2.2. **Workers:** Mechanics, Workshop Mechanics, Scrapyards Mechanics/Workers

2.3. **Businesses:** Shops, Workshops, Government Entities

2.4. **Others:** Car Enthusiasts

2.5. **B2B Solution seekers**

## 3. Not Station-like:

3.1.Not station-like functionalities:

3.2.Not station-like entities:

3.3.Not station-like audience:

## 1.4 References:

*This subsection should:*

*(1) Provide a complete list of all documents referenced elsewhere in the SRS, or in a separate, specified document.*

*(2) Identify each document by title, report number - if applicable - date, and publishing organization.*

*(3) Specify the sources from which the references can be obtained.*

*This information may be provided by reference to an appendix or to another document.*

## Overview

# General Description

As reach to the internet in Libya peacked to 70% of the population, more and more people are looking for Software-Solutions to help aid them in their developing lives. Most buisness have a FB page, and has registered on Google Maps, Yet most of them can’t seem to utilize the power of internet at its full. Looking for a solution at the IT world without having a knowledge of it is like searching for a needle in a plow of weet. Hence the Mobadara from the IT profeesionals has made its rise.

Many IT professionals are always on the hunt for any market that has gaps needing to be solved accurately and cheaply. The most demanding market in Libya nowadays is the Car-Market. No P.O.S sale system has ever been pushed to the workshops that eases handling customers cars reapirs, nor a system that helped Shops control their sales and connect to more customers.

That's why many rely on posting on their FB page about their prices and offers, which isn’t a sustainable way to do sales and advertisements. FB is for reach and connecting with the community not for sale/storage management. Hence at the end of each year all owners will have to suffer to calculate their expenses, sales and capital to come out with their tax statements, Zakat or even to know wether to continue in the business or shutdown.

This burden on business owners in the cars industry will push them to adopt the discussed system. It will not only be a P.O.S, but also a supply-chain manager. A car gets fixed without having the Owner seek the proper price or look for the best technician, the owner can surf the platform and look for a workshop that fixes alike cars, look at their mechanics and their experience or any certifications, order parts for it from any shop that he prefers, the parts gets delivered to the workshop, every step is documented for later reference, data is provided for all parties regarding their portion of this process, and everyone gets payed on time. At the end of the day everyone benefited from keeping track of theses recurring processes, the car owner will have his cars true price when selling it because of the regular maintenance records on its profile, the workshop will have their sales recorded for further accounting to be done, their experience on this Make and Model increased, the mechanic will have a better career since everything is kept for him online, and he can work anywhere else thanks to the potability of his CV, the shop owner has sold the piece and delivered it, got payed, made his accounting at the end of the year easier, all with an internet connection and a subscription.

The power of Software-Solutions indeed.

## Product Perspective

1 Copart
2 Car parts selling websites
3 Car manuals selling websites
4 Generale purpose P.O.S systems for shops

## Product Functions

1.1.1 **Car Profile:**
1.1.2 **Suggestions & Tips**
1.1.3 **Car-Station Feed**

1.2.1 **Shop Profile**
1.2.2 **AI Driven Assistant**
1.2.3 **Online/On Site P.O.S & and Management Tools**

1.3.1 **Workshop Profile**
1.3.2 **AI Driven Assistant**
1.3.3 **Online/On Site P.O.S & and Management Tools**

1.4.1 **Marketplace Feed**
1.4.2 **Online Payments**

1.5.1 **Service Station Platform Connectivity**

1.6.1 **Data Station Platform Connectivity**

## User Characteristics

### 2.1. **Owners:**

2.1.1 **Car Owners:** Any entity, person or shop that owns a car.
2.1.2 **Shop Owners:** Product selling owners, car parts or cars alike.
2.1.3 **Workshop Owners:** Independent technicians or businesses.
2.1.4 **Scrapyard Owners:** Person who operates or assists at operating the scrap yard.

### 2.2. **Workers:**

2.2.1 **Mechanics:** Independent professionals whom are willing to be identified as a portable workshop.
2.2.2 **Workshop Mechanics:** Professionals who work for a workshop owner and at a designated location.
2.2.3 **Scrapyards Mechanics/Workers:** Individuals who run or work at scrapyards.

### 2.3. **Businesses:**

2.3.1 **Shops:** A place selling either parts or cars.
2.3.2 **Workshops:** A location/technician that cars, parts and salvages totaled cars.
2.3.3 **Government Entities:** Any entity that observes or organizes the market.

## User Characteristics

### 2.4. **Others:**

2.4.1 **Car Enthusiasts:** All users that show interests at using the platform for the joy of the ride rather than the actual utility of the vehicle. Including 'Modders', Painters, Modded/Unique cars importers, Modding parts importers, influences, event organizers, etc.

2.5. **B2B Solution seekers:** Entities that look for smart intel to aid them take accurate decisions at their business.

## General Constraints

Hardware Constraints:

Workshops:

Requires a phone of 1200LYD and above
Requires an internet connection to any device at least once a day
Touchscreen to aid the mechanic in using the system functionality

Shops:

Minimum Requirements of a to be:32-bit, 6Gigaram, Corei3 gen5, windows 8-10
Phone of 1200LYD and above
An internet connection to any device at least once a day

Scrapyards:

Phone of 1200LYD and above
An internet connection to any device at least once a day

Owners:

Phone of 1200LYD and above
Constant internet connection

Flexible Server plan to aid the growing user-base and data collection

Software Constraints:

- System can run on minimal feature on low-end devices
- Platform will have to use a variety of No-SQL databases to handle the surge of data
- Platform Programmed in Go and Rust to have a very fast execution
- Compatibility with other websites APIs to import and show data and manuscripts.
- Capability to web scrap websites and other platforms for data about services and items.
- Compatible on windows 8, 10 and Linux
- Able to run 32-bit architecture computers
- Identity confirmation for various services on the platform using National-ID and SMS messages

Interface Constraints:

- API Connectivity with devs.ly for 2FA using SMS service called EASYSMS.
- API Connectivity with the National-Database to confirm identity of Sellers with Government Organizations.
- API Connectivity with https://tdsp.ly/ for online payments for all shops and services.

Regulatory Constraints:

- Libyan Law No.4 for the year 1990
- ……..

Environmental Constraints:

- Scrapyards:
  - Usage of Mobile is preferred and recommended
  - Computer to be inside a room and not in an open place
- Shops and workshops:
  - Touchscreens to be covered with a protective screens
  - Main computer to not be accessed by others than Shops-Owners
  - Computers to be provided with Power-Units

### 2.5 Assumptions and Dependencies

This subsection of the SRS should list each of the factors that affect the requirements stated in the SRS. These factors are not design constraints on the software but are, rather, any changes to them that can affect the requirements in the SRS. For example, an assumption might be that a specific operating system will be available on the hardware designated for the software product. If, in fact, the operating system is not available, the SRS would then have to change accordingly.

## 3. Specific Requirements

This will be the largest and most important section of the SRS. The customer requirements will be embodied within Section 2, but this section will give the D-requirements that are used to guide the project’s software design, implementation, and testing.

Each requirement in this section should be:

- Correct
- Traceable (both forward and backward to prior/future artifacts)
- Unambiguous
- Verifiable (i.e., testable)
- Prioritized (with respect to importance and/or stability)
- Complete
- Consistent
- Uniquely identifiable (usually via numbering like 3.4.5.6)

Attention should be paid to the carefuly organize the requirements presented in this section so that they may easily accessed and understood. Furthermore, this SRS is not the software design document, therefore one should avoid the tendency to over-constrain (and therefore design) the software project within this SRS.

## 3.1 External Interface Requirements

### 3.1.1 User Interfaces

### 3.1.2 Hardware Interfaces

### 3.1.3 Software Interfaces

### 3.1.4 Communications Interfaces

## 3.2 Functional Requirements

This section describes specific features of the software project. If desired, some requirements may be specified in the use-case format and listed in the Use Cases Section.

### 3.2.1 <Functional Requirement or Feature #1>

3.2.1.1 Introduction
3.2.1.2 Inputs
3.2.1.3 Processing
3.2.1.4 Outputs
3.2.1.5 Error Handling

### 3.2.2 <Functional Requirement or Feature #2>

…

## 3.3 Use Cases

### 3.3.1 Use Case #1

### 3.3.2 Use Case #2

…
…

## 3.5 Non-Functional Requirements

Non-functional requirements may exist for the following attributes. Often these requirements must be achieved at a system-wide level rather than at a unit level. State the requirements in the following sections in measurable terms (e.g., 95% of transaction shall be processed in less than a second, system downtime may not exceed 1 minute per day, > 30 day MTBF value, etc).

### 3.5.1 Performance

### 3.5.2 Reliability

### 3.5.3 Availability

### 3.5.4 Security

### 3.5.5 Maintainability

### 3.5.6 Portability