# Software requirement Specification
# On Motor Part Shop Software

**Submitted By**

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# 1 Introduction

## 1.1 Document Purpose

The purpose of the document is to serve as a guide to designers, developers and testers who are responsible for the engineering of the **Motor Part Shop project**. It should give the engineers all of the information necessary to design, develop and test the software.

## 1.2  Product Scope

 A small automobile spare parts shop sells the spare parts for vehicles of several models. Also each part is typically manufactured by several small industries. To stream line the sales and supply ordering, the shop owner has asked us to develop the following motor part shop software.

The motor part shop deals with large no. of motor parts of various manufacturers and various vehicle types. Some of the motor parts are very small and some are very large. The owner maintains different parts in wall mounted and numbered racks.

The shop owner maintains as few inventory for each item as reasonable, to reduce inventory overheads after being inspired by "just in time (JIT) philosophy".

**The system can be accessed by:**
1. **User**
2. **Shop Owner(Admin)**

**Both the user and shop owner are authorised before using the software.**

## 1.3  Intended Audience and Document Overview

This document is intended for developers, shop owner, testers, and documentation writers. Start with the purpose, followed by the product scope and the functional and non-functional requirements of the system and also contains the contextual and data flow diagrams.

## 1.4  Definitions, Acronyms and Abbreviations

| Acronym, Abbreviations | Description |
|---|---|
| SRS | Software Requirement Specification |
| IEEE | Institute of Electrical and Electronics Engineers |
| LAN | Local Area Network |

| | |
|---|---|
| HTML | Hyper Text Markup Language |
| CSS | Cascading Style Sheet |
| PHP | PHP Hypertext Preprocessor |

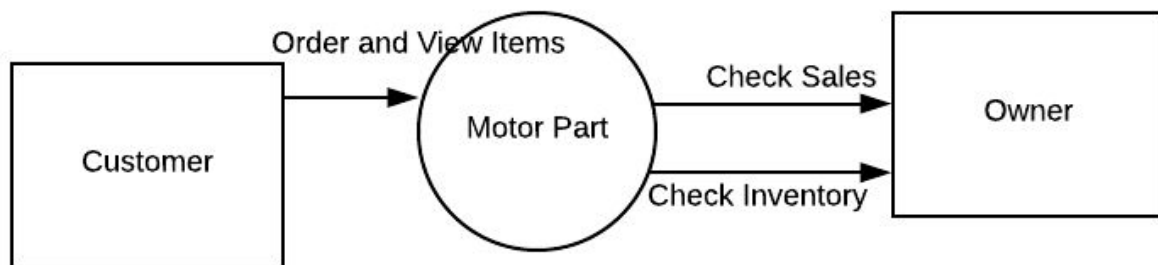## 1.5  References and Acknowledgments

www.w3school.com

## 1.6 Overview of Developer Responsibilities:

The developer will be responsible for the design of the web interface. And he will have to develop the bug free software for both the user and Admin. The design should be consistent throughout the webpage

# 2 General Description

## 2.1 Product Perspective:

The **Motor Part Shop** system will be a newly developed and self contained product. This section includes the contextual diagram which gives much information and the interfaces between different entities



## 2.2  Product Function Overview
**The motor part shop software deals with:**

1. The product solves the problem the shop owner faces to be able to order items as soon as the no. of items in the inventory reduces below a threshold value and enables the shop owner to maintain parts to be able to sustain selling for about one week.

2. The product should allow user to register and Add Items to the Cart

3. The Product should allow user to facilitate payment

4. The product should allow the shop owner to see and track inventory

5. The Product should notify the show owner when inventory reaches a critical level

## 2.2  User and Characteristics
The various users that will use this product are:

### 2.2.1 Owner:
**Maintenance**: A wall mounted and numbered racks are maintained. Streamline the sales and supply ordering, maintains JIT philosophy.
**Insert Product**: Owner should be able to insert item in inventory

**View customer details:** View the personal details of the customer.

**Managing Sales to Customers:** Responsible for properly allocating the selected product according to the customer's choice and delivering product to the customer.

**View Product Stocks:** Keep track of each product item's stocks for selling purpose.

### 2.2.2 Customer:

**Login**: Customers must have a valid login id to enter into the site.

**Registration**: New users can sign up by creating new ID.

View and edit Own Details: Can view/edit his personal details, payment details, and details about services provided.

**Choosing and comparing products**: Can view all available products and can compare them and make a choice for purchasing products.

**Purchasing**: Can purchase any product and make payment.

**Logout**: Customer must logout of the site after purchasing products.

## 2.3 Operating Environment

2.4 The software will operate in any environment, including the hardware platform, operating system and versions, and any other software components or applications. This product is web based and can be viewed by any browser and has been tested for compliance with Mozilla, IE and Opera.

## 2.4 Design and Implementation Constraints

The design and implementation constraints of this system are:
1. Its front end should be implemented using HTML5, CSS3 and JavaScript.
2. The back end should be managed by the PHP & SQL.
3. Inno DB Engine

## 2.5 Assumptions and Dependencies

We assume that extra documentation beyond this SRS would not be necessary in order for the user, owner to utilize this product.

# 3 Functional Requirements

## 3.1 User Interfaces

### 3.1.1 User Registration:

• Input: Account Information
• Output: New Account
• Purpose: Add users to the system
• User: Admin with sufficient privileges and Super user

### 3.1.2 User Login:

3.1.3 Input: Username and Password

• Output: Access to account
• Purpose: Login into the system with unique username and password to perform various actions
• User: users, Shop Owner

### 3.1.4 Remove User:

3.4     Remove User
Input: User name

• Output: Account Deleted

• Purpose: Remove users from the system

• User: Admin with sufficient privileges and Super user

### 3.1.5 Modify Passoword

• Input: Current and New password
• Output: Password Changed
• Purpose: Change user password either with request from user or when user forgot password.
• User: All

### 3.1.6 Edit Profile

• Input:  Login
• Output: Updated Profile
• Purpose: Edit profile information
• User:  Admin, Super user, Student

### 3.1.8 Add Product to cart

- Input: Product I'd and User I'd
- Output: Add Product in cart of given person
- Purpose: To add product in cart
- User: Customer

### 3.1.9 Show list of Inventory to Admin

- Input: N/A
- Output: List of available product in inventory
- Purpose: To See Item in inventory
- User: Admin

### 3.1.10 Show Available product to user

- Input: N/A
- Output: All the product in nicely formatted way
- Purpose: To allow user to view and add item in the cart

### 3.1.11 Change Password

- Input: Old Password and New passoword
- Output: Update the password in Database
- Purpose: To change the password
- User: Customer and Admin

## 3.2 Software Interfaces

Along with the internet connection, the system makes indirect use of an internet browser. Outside of the HTML code and PHP, the code does not tell any software, including the browser, what to do.
Software Requirements:
1. Operating system: Microsoft 2000 /XP Prof
2. Back end : SQL Server 2008
3. Language : JavaScript, HTML, PHP
4. Other software: DIA

## 3.3 <u>Communications Interfaces</u>

1. We will be using PHP along with SSL encryption to send and receive updates

2.  We will be using HTTPS for establishing connection between user and database.

## 3.4 Functional Requirements

Initial functional requirements will be: -

1. Secure registration facility for Customers.
    a.
2. Browsing through the site to see the items that are there in each category of products like tyres, nut and bolts, engine etc
3.  Adequate searching mechanisms for easy and quick access to particular products and services.
4.
5.  Creating a Shopping cart so that customers can shop 'n' no. of items and checkout finally with the entire shopping carts.

6. Strategic data and graphs for Administrators and Shop owners about the items that are popular in each category.

7.  Maintaining database of regular customers of different needs.

8. Accounting manager is responsible for invoices.

9. Keeping the daily sell and details of the customer at the end of the day.

10.  On reaching a threshold value, the owner orders the materials from the vendor.

11.  The software calculates the average part sale for one week.

# 4 External Interface Requirement

## 4.1 Software Interfaces:

The system will interact with Payment gateway. This communication should be done through API and should be secure

## 4.2 Hardware Interfaces

1.    Scalable Cloud Based Hosting solution

## 4.3 User Interfaces

1.    The user should be able to login and signup.
2.    Dashboard should be there. It will show profile information, list of available product and cart Information
3.    Admin Panel will show the inventory information and sales Information and a notification panel which will show the list of product which has hit the threshold level

# 5 Performance Requirements

1. The connection to the servers will be based on the criteria of attributes of the user like his location and the server will be working whole 24x7 times.

2.    The system is accurate.

3.    Any transaction will not take more than 10 seconds.

4.    The system shall function in real time.

5.    The system shall allow simultaneous use by at least 100 users, without data corruption.

6.    The system will try to retain the integrity of data when there is concurrent access.

## 5.1 Safety and Security Requirements

● In order to use certain features of the system, users must first authenticate themselves by entering a username and password.
● The system shall not allow access if the user fails to provide correct login information.
● Normal user will not be able to use the privilege provided to the owner in any case.
● Only administrator will be allowed to do the updates.

## 5.2 Software Quality Attributes

### Flexibility

The system should be flexible enough to handle several additions and deletions of users/parts andsupport extensions in the functionalities if required.

### Maintainability

The software will be maintainable enough so that extra features can be added or modified at any time.

### Testability

Web site can be tested with a number of users using it at a time.

### Reliability

It will be reliable and will send the correct information to the correct user who have registered to the site.

### Usability and portability

Software will be easy to use and will be portable enough to transfer from one server machine to another.

# 6 Design Constraints:

## 6.1 Hardware Limitation:
1. The software should run on all type of browser and not just chrome. It must support Microsoft edge, Opera, Firefox. Moreover it should run on low end mobile devices with limited bandwidth.
2. The Database and computation power should scale well as number of user increase