Software Requirements Specification

for

Motor Part Shop Software

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Introduction

1.1 Purpose of the document:

The purpose of this document provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete _Motor Part Shop Software_ by defining the problem statement in detail. Nevertheless, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features. The detailed requirements of the Motor Part Shop are provided in this document.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in software delivery lifecycle (SDLC) processes.

1.2 Document Conventions:

SRS : Software Requirements Specification

MPSS : Motor Part Shop Software.

1.3 Intended Audience and Reading Suggestions:

Clients: The users of the system (Shop Owner and workers) will get a clear idea of the software and hardware requirements to be engaged.

Developers, Testers : Project developers and testers have an advantage of quickly understanding the methodology enabled and personalizing the product.

The authors would suggest clients to go through the requirement section thoroughly before installing the software.

1.4 Project Scope:

A small auto mobile spare part shop sells the spare parts for vehicles of several makes and models. Also, each spare part is typically manufactures by several small industries, to stream the inline sales the shop owner has asked us to develop a software.

The motor parts shop deals with large number of motor parts of various manufacturers and various vehicle types. Some of the motor parts are very small and some are of reasonably large size. The shop owner maintains different parts in wall mounted and numbered racks.

the software must be able to calculate the average number of parts sales for one week for each part and use *JIT Philosophy (Just In Time)* use the threshold value of the item to sustain sales for a week. At the end of each day, the software should generate the items to be ordered. The software should list out the part number, the amount required and the address of the vendor supplying the part.
The software should also generate the revenue for each day and at the end of the month, the computer should generate a graph showing the sales for each day of the month.

1.5 References :

- [IEEE] The applicable IEEE standards are published in "IEEE Standards Collection,"2001 edition.
- [Bruade] The principal source of textbook material is "Software Engineering: An Object- Oriented Perspective" by Eric J. Bruade (Wiley2001).
- Reaves, Michael J. "Software Project Management Plan Jacksonville State University Computing and Information Sciences Web Accessible Alumni Database." Jacksonville State University, 2003.
- http://www.tracemodeler.com/articles/a_quick_introduction_to_uml_sequence_diagrams/
- http://www.ibm.com/developerworks/rational/library/content/RationalEdge/sep04/bell/
- http://www.andrew.cmu.edu/course/90-754/umlucdfaq.html
- Class slides and few other links.

2. Overall 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
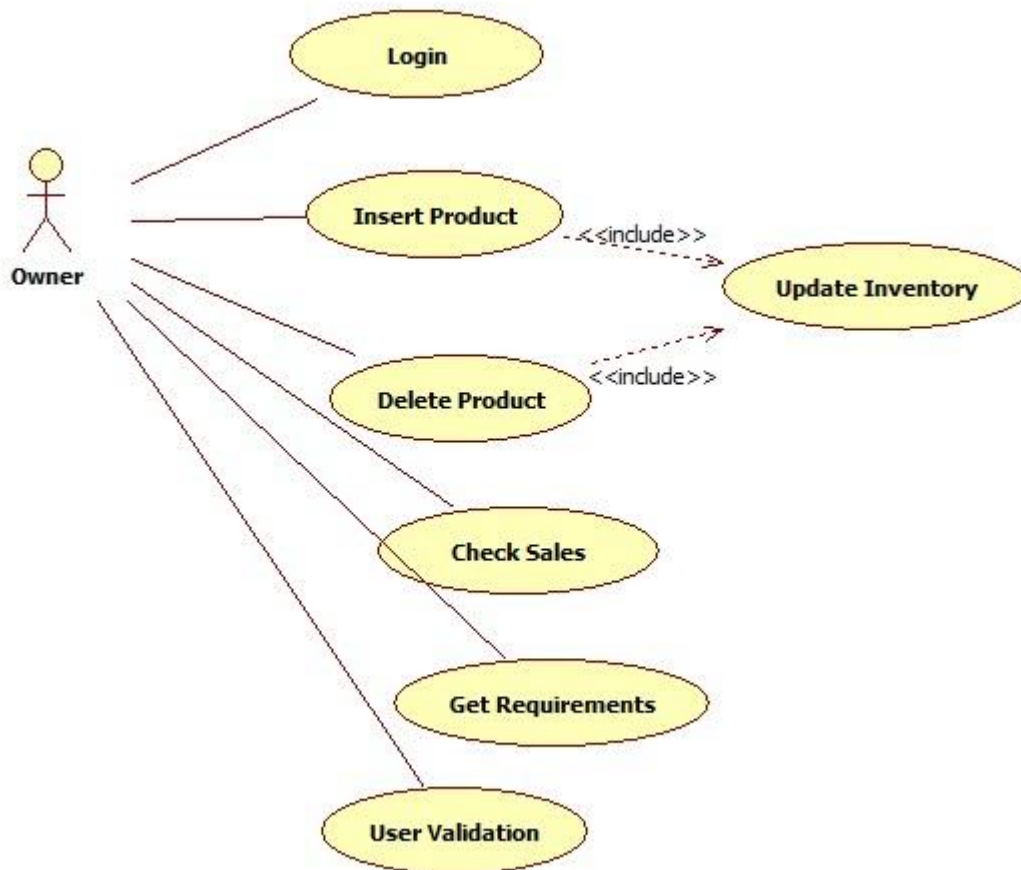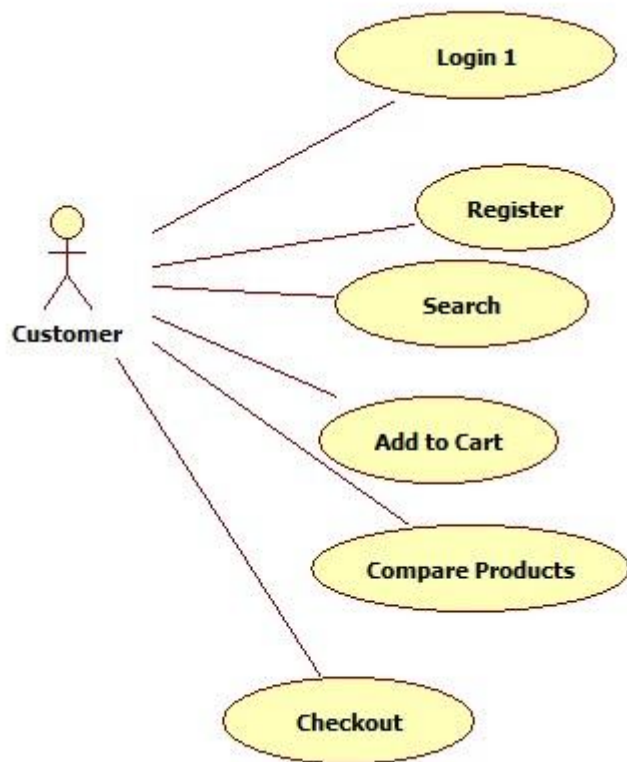

Fig.1 Use Case Diagram for Owner

Fig.1 Use Case Diagram for Customer

2.2 Product Features:

The Motor Part Shop Software deals with:

- ✓ Keeps track of the items purchased by the Customer and Invoices.
- ✓ Has the database of Items available in the inventory.
- ✓ The product solves the problem the shop owner faces to be able to order items as soon as items in the inventory drops below a threshold value thus enabling shop owner to sustain selling for about one week.
- ✓ The product enables computer to generate the items to be ordered, print out its part number and the amount and address of the vendor supplying the part.
- ✓ It generates revenue for each day and at the end of the month, computer generates a graph showing the sales for each day of month.

2.3 Users and Characteristics :

The Various users of this product are:

➢ **Owner :**
   Login : Owner has his own valid login credentials which give him administrator privileges.

   Managing Sales : Responsible for properly allocating selected product to the customer and checking the checking the statistics.

   Manage customers : View the details of any customer, delete an existing customer.

Manage Inventory :   View the Inventory in the shop. Insert, Delete, Update the parts(products) in the Inventory and check the Threshold value and order items from vendors accordingly.

Review Statistics : View the revenue for each day and at the end of the each month, statistics graph showing the sales for each day of month.

Manage Invoices / Transaction : Can manage invoices and Transactions.

➢ **Customer :**
Login : Customers must have valid login id to enter in the site.

Register : New customers can register themselves.

Purchase new Parts : any registered customer can purchase items in his cart.

Edit/ Add to cart :   he can add or remove items or increase or decrease the quantity of items in his cart.

Compare Products : Can view all available products in a category and can compare them to make best choice for the purchase.

Logout : Can must logout after the purchase

2.4 Operating Environment :

This software can operate in any environment, including hardware, platform, operating system and versions.

2.5 Design and Implementation Constraints:

The Design implementation constraints of this system are:

➢ It's front end should be implemented using Java.
➢ The Back end should be managed by SQL

2.6 User Documentation:

The user Documentation can be found in this SRS.

2.7 Assumption and Dependencies:

We assume that no extra documentation beyond this SRS would be necessary for the user to use this software.

3. Specific Requirements

3.1 External Interface Specification :

 None.

3.2 Other Functional Requirements:

 All the functional requirements are specified and described in the Software Analysis Software Development Document . Please refer SASD

3.3 Non-functional requirements:

- ➢ Hardware: Personal Computer

- ➢ Operation System WindowsXP or more , linux

- ➢ Code Standard The software will be coded in JAVA editor using NETBEANS 7.0or eclipse.

- ➢ Performance The software should function properly 100% of the time.

3.2 System Evolution:

- We can also make some algorithm for estimating which product must be given more priority in sales by analysing the statistics.
- We can also make accounts for dialy customers, store all their transactions for giving them some incentives.
- We can increase the security by adding more features like face detection.
- We can also develop this software to run on a web server through which this can be online shopping

4 External Interface Requirements

4.1 User Interfaces :

  The interface between the system and the users mainly include a window that includes a form in which user can enter the Username(which is unique) , Password and the owner has admin id and password which opens another page where users can add the desired motor parts in the cart and later checkout and purchase. At the end an invoice is generated in order to make a payment.

4.2 Hardware Interfaces :

> ➢ Hard disk: 1 GB for MS SQL Server 2008.
> ➢ Processor : Pentium 4 or faster
> ➢ Memory : at least 256 MB RAM
> ➢ Input output device : keyboard, mouse and colour monitor

4.3 Software Interfaces :

  The software will be coded in JAVA editor using NETBEANS 7.0 no other software interface required.

5 Other Requirements

No additional requirements.