Software Requirements Specification

for

Online Shopping Aggregator ‘Shopsmart’

Version 1.0 approved

Prepared by Bharath A Kinnal

15IT114, B.Tech

Department of Information Technology

NITK Surathkal

23 January, 2018

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The Software Requirement Specification (SRS) typically contains the brief description of the project. The purpose of the requirement document is to specify all the information required to design, develop and test the software.

The main purpose of this project is to allow users to choose the right product item that he/she is looking for, for the lowest price. This will be implemented by collecting data for a product item to be searched from multiple different web sources.

1.2 Document Conventions

- The conventions followed in this document conform to the standard IEEE SRS conventions. All the requirements which are absolutely essential are shown in Bold text.
- Specific priority component ratings for a system feature will be rated on a relative scale from a low of 1 to a high of 9.

1.3 Intended Audience and Reading Suggestions

We are making this document by keeping in mind different types of readers. This document will be useful for different audience in various ways.

- The developers will use this document for guidance for design and implementation phase.
- The managers will see the constraints all cover properly, and that time and cost is within limits or not.
- The user can ensure there self by reading the SRS that their needs being met in the web application or not.
- The testers will test the implementation of the project according to the SRS base.
- The documentation writer will use this document during the documentation of the project. It will be really helpful for them.

1.4 Product Scope

The document only covers the requirements specifications for the Online Shopping Aggregator. This document does not provide any references to the other component of the Online Shopping Aggregator. All the external interfaces and the dependencies are also identified in this document.

Feasibility study: The overall scope of the feasibility study was to provide sufficient information to allow a decision to be made as to whether the Online Shopping Aggregation project should proceed and if so, its relative priority in the context of other existing Online Shopping Aggregation Technology.

The feasibility study phase of this project had undergone through various steps which as describe as under:

- Identity the origin the information at different level.
- Identity the expectation of user from computerized system.
- Analyze the drawback of existing system(manual system)

1.5 References

- An Integrated Approach Software Engineering Third Edition by Pankaj Jalote.
- www.w3schools.com
- php.net
- labs.udacity.com

2. Overall Description

2.1 Product Perspective

The proposed Online Shopping Aggregator will provide an economical approach to buy a commodity, by comparing the prices of that commodity sold by multiple different web sources. After making this web store the user need not go to other sites for different type of shopping in order to search for the best product for the lowest price.

2.2 Product Functions

The product has several major functions :

- Product search
- Access e-shopping website
- Price compare
- Display lowest price

2.3 User Classes and Characteristics

There will be 2 major user classes :

- The System Administrator class will maintain the overall web store. The System Administrator is responsible for updating the list of e-shopping websites, and making a easy-to-use UI.
- The User class includes the people who will purchase the things. It will save the attributes of product sale.

2.4 Operating Environment

- It will operate on different web browsers such as Internet Explorer (version 6), Google Chrome and Mozilla Firefox.
- It can be used on Windows, Linux and Mac OS.
- The video device should support graphics.
- RAM should be or greater than 512 MB.
- PHP, JavaScript, HTML and CSS will be used.
- Since this application compares prices from the Internet in a real-time environment, this application must be used with an uninterrupted network connection.

2.5 Design Constraints

- There is a true need of this product in the cyber world. So we have to complete it in minimum time of around two months.

- This application relies on a list of e-shopping websites from which the different prices of an item can be compared. Hence, this list has to be constantly updated.
- This project and its documentation should follow the IEEE standards.

2.6 Implementation Constraints

- A item that is searched may have the keywords searched only being a part of the product title.
- Once an item having a given price and website is selected, the application opens the given website in order to proceed to payment.

2.7 User Documentation

The complete documentation of this project will be given out along with the software.

2.8 Assumptions and Dependencies

- The product name entered by the user is searched only from the list of the e-shopping websites registered in the application.
- All the data entered will be correct and up to date.

3. External Interface Requirements

3.1 User Interfaces

The user interface will be simple and easy to understand and use. Also, it should be an interactive interface. The system should prompt for proper input criteria.

The software provides good GUI for the user.

- The UI allows user to enter required product name in a search bar given on the webpage
- The UI allows user to select the product desired out of a given set of products searched based on the keywords entered, along with the price of the product and the e-shopping website.

3.2 Hardware Interfaces

- Processor speed should be greater than 400Mhz
- The video device should support graphics.
- RAM - Greater than 512 MB
- The device should have a web browser

3.3 Software Interfaces

- Web Browser – Google Chrome, Internet Explorer, Safari, Mozilla Firefox, Chromium
- PHP
- JavaScript
- HTML and CSS
- MySQL Database

3.4 Communications Interfaces

- Operating System - Windows OS, Linux OS, Mac OS

4. System Features

For this web application, two main object classes will be used:
- Search
- Pricing

4.1 Object Class : Search

4.1.1 Description and Priority

In this object class, the user searches for their required commodity by entering the necessary keywords in a search bar. The web-page will display all the e-shopping websites this application connects to, and consists of a search bar where the user types in the required keywords to identify their need.

This class can be considered Medium priority. The main component of relevance is the search bar, having a priority of 7. Other components include the display of all the e-shopping websites, having a priority of 5.

4.1.2 Stimulus/Response Sequences

When the user types in the required keywords in the search bar and submits it, the object class 'Pricing' will be invoked, in order to search for the product in the different websites mentioned above.

4.1.3 Functional Requirements

REQ-1: The User Interface must be easy to use and understand. For having this CSS will be used

REQ-2: The list of e-shopping websites must be updated frequently in order to have provide more options for the user

4.2 Object Class : Pricing

4.2.1 Description and Priority

In this object class, the keyword entered by the user will be searched in all the e-shopping websites, and the prices of all relevant products found will be compared. The web-page will then display all the products containing the keywords entered, along with the price and the website offering it. Since the main goal of this application is to provide the best product with the lowest price, the products are displayed in an increasing order of price. Once the

This class can be considered High priority. There will be 1 main component of relevance, which is the display of relevant products, and has a priority of 9.

4.2.2 Stimulus/Response Sequences

When the user clicks on the desired product, the application will redirect to the website offering the product, in order to perform payment.

4.2.3 Functional Requirements

REQ-1: The User Interface must be easy to use and understand. For having this CSS will be used

REQ-2: The application will involve comparing prices of different products in real-time. In order for a smooth execution of the application, a good internet connection is required.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The application will involve comparing prices of different products in real-time. To have a good performance of the product, a good internet connection is required. A minimum of 150 Kbps speed and a low ping between the server and client is required. Else if ping is high, a timeout may occur and the server may disconnect before it can reply. In addition the computer must have sufficient memory and processing power to run the program. While these are minimal (104.3 KB and an i3 processor are sufficient) a lower end processor may suffer performance issues.

5.2 Security Requirements

- The web store keep the information of the customers and merchants safe.
- This application will not have any previous history of what products the customer has searched.
- The web store obeys all the security laws relating to cyber traffic.

5.3 Software Quality Attributes

- The web store well is easy to use.
- It will be easy to learn how to operate it.
- The web store will show easy to locate buttons
- The web store use simple English so that user cannot confuse with terms.
- The web store should be easy to upgrade

Appendix A: Glossary

TBA

Appendix B: Analysis Models

TBA