Online shopping mall Test Plan

**Test plan identifier:** osm

**Reference**:  IEEE SRS Format

**Project plan**:  Online shopping mall(osm) is an application design with the aim of selling goods to customers via internet.Target users include mail administrators, shop owners,MallCustomer/Guests and Employees.

**System Requirement**: OSM 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.

**Low Level Requirement**:  Osm application should be able to run on any browser i.e latest version

of internet explorer 8,mozila fire fox 40.0.2 etc.

* **Design** :The osm application is designed with the sole am of selling goods to customers through internet, The consumer will be in complete control of his/her shopping experience by using the “*unique storefront*” concept.

Software Requirements

# Introduction

## Purpose

The Online Shopping Mall (OSM) web application is intended to provide complete solutions for vendors as well as customers through a single get way using the internet as the sole medium. It will enable vendors to setup online shops, customer to browse through the shop and purchase them online without having to visit the shop physically. The administration module will enable a system administrator to approve and reject requests for new shops and maintain various lists of shop category

This document is meant to delineate the features of OSM, 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.

## Scope

* Initial functional requirements will be: -
* Secure registration and profile management facilities for Customers
* Browsing through the e-Mall to see the items that are there in each category of products like Apparel, Kitchen accessories, Bath accessories, Food items etc.
* Adequate searching mechanisms for easy and quick access to particular products and services.
* Creating a Shopping cart so that customers can shop ‘n’ no. of items and checkout finally with the entire shopping carts.
* Regular updates to registered customers of the OSM about new arrivals.
* Uploading ‘Most Purchased’ Items in each category of products in the Shop like Apparel, Kitchen accessories, Bath accessories, Food items etc.
* Strategic data and graphs for Administrators and Shop owners about the items that are popular in each category and age group.
* Maintaining database of regular customers of different needs.
* Shop employees are responsible for internal affairs like processing orders, assure home delivery, getting customer's delivery-time feedback, updating order's status and answering client's queries online.
* Feedback mechanism, so that customers can give feedback for the product or service which they have purchased. Also facility rating of individual products by relevant customers. Also feedback can be given on the performance of particular vendors and the entire mall as well.
* Adequate payment mechanism and gateway for all popular credit cards, cheques and other relevant payment options, as available from time to time.
* For the previous paragraph, depicting the functions of the system, from the perspective of the various users of the system, the following colour codes has been used :

RED for administrator

BLUE for customer of the shopping mall

GREEN for the employees.

Initial non functional requirements will be: -

* Secure access of confidential data (user’s details). SSL can be used.
* 24 X 7 availability
* Better component design to get better performance at peak time
* Advertisement space where it will effectively catch the customer’s attention and as a source of revenue.
* In addition to the above mentioned points, due to the highly evolving nature of the project, the following are planned to be delivered if deemed necessary:
* Warehousing within the very ambits of the project
* More payment gateways.
* Dynamic price model by which prices can be changed based on demand and supply
* Dynamic Storefront: Each customer will have a web page personalized based on his or her recent purchases. This is the equivalent of having a unique storefront for each customer in hopes of drawing in as many return customers as possible.

This list is by no means, a final one. The final list will be dictated by implementation constraints, market forces and most importantly, by end user demands for whom this is being built.

## Definitions, Acronyms and Abbreviations

* SLA: Service Level Agreement or SLA is a formal written agreement made between two parties, the service provider & the service recipient. It defines the term of engagement - the fundamental rules that will govern the relationship.
* EJB**:** Enterprise Java Beans.
* JAVA EE:Java Enterprise Edition 5 is a programming platform— part of the Java Platform-for developing and running distributed multi-tier architecture Java applications, based largely on modular software components running on an application server.
* HTTP: Hypertext Transfer Protocol is a transaction oriented client/server protocol between a web browser & a Web Server.
* HTTPS:Secure Hypertext Transfer Protocol is a HTTP over SSL (secure socket layer).
* TCP/IP:Transmission Control Protocol/Internet Protocol, the suite of communication protocols used to connect hosts on the Internet. TCP/IP uses several protocols, the two main ones being TCP and IP.

**Introduction**

The Online Shopping Mall (OSM) application enables vendors to set up online shops, customers to browse through the shops, and a system administrator to approve and reject requests for new shops and maintain lists of shop categories.

Also on the agenda is designing an online shopping site to manage the items in the shop and also help customers purchase them online without having to visit the shop physically.

Our online shopping mall will use the internet as the sole method for selling goods to its consumers. The consumer will be in complete control of his/her shopping experience by using the “*unique storefront*” concept. Shopping will be highly personalized and the mall will provide lower prices than most competitors. This, in brief, is a description of our product which will showcase a complete shopping experience in a small package.

Purpose

* Today the internet and its boom have created a new economic scenario that not only stresses on the classical concept of the “*product*” but also on the modern concept of “*service*”. It is this level of service that dictates whether a commercial venture will succeed or not in the market. To provide a high accessibility of service we will design the online shopping website, so that potential customers need not go to a physical shop to buy products or services. They just need to online to complete their purchases. Unlike the prevailing “brick and mortar” shops which have physical existence, we will operate solely from cyberspace.
* Most current systems have a physical foundation that is the root cause to quite a number of problems. By maintaining multiple store fronts, itself being an expensive proposition, store prices are forced to rise. Thus, by using our product, our clients’ competitors are at a disadvantage because their costs are significantly higher than our costs, allowing our clients to sell the same goods at a lower price. As people become more accustomed to using the internet, they view ordering products and services online as a time-saving and cost-saving experience, which is the very essence of our online shopping system.
* This project envisages bridging the gap between the seller, the retailer and the customer. A very high flexibility is being maintained in the design process so that this project can take the following path : -

A multiple merchant venue with each merchant having his/her own window which the customer can

visit to browse and subsequently buy the products from

* Maintaining the deliverable goods as well as services through single or multiple windows is also on the agenda.

## Technologies to be used

Programming languages:

* JAVA EE: Java Enterprise Edition is a programming platform— part of the Java Platform-for developing and running distributed multi-tier architecture Java applications, based largely on modular software components running on an application server.
* HTML, XML: Hyper Text Markup Language and Extensible markup Language are the predominant markup languages for web pages. It provides a means to describe the structure of text-based information in a document and to supplement that text with interactive forms, embedded images, and other objects.
* JavaScript: A client side scripting language used to create dynamic web content and user interface.

Tools & Development Environment

* Apache Tomcat 6.0.18 Server: Apache Tomcat is a Servlet container developed by the Apache Software Foundation (ASF). Tomcat implements the Java Servlet and the JavaServer Pages (JSP) specifications from Sun Microsystems, and provides a "pure Java" HTTP web server environment for Java code to run.
* ECLIPSE J2EE: Eclipse is a toolkit which is designed for the creation of complex projects, providing fully dynamic web application utilizing EJB’s. This consist of EJB tools , CMP ,data mapping tools & a universal test client that is designed to aid testing of EJB’s.

**Test Items**

Customers

Visitors

Administrators

Shop owners

Employee: account manager, sales manager, purchase manager and customer care.

**Software Risk Issues**

## Constraints

* There is no maintainability of back up so availability will get affected.
* Limited to HTTP/HTTPS.
* Real-life credit card validation and Banking system is not implemented.
* No multilingual support

**Features to be Tested**

* *Content* is evaluated at both the syntactic and semantic level.
* *Function* is tested to uncover errors that indicate lack of conformance to customer requirements.
* *Structure* is assessed to ensure that it properly delivers content and function, that it is extensible, and that it can be supported as new content or functionality is added.
* *Usability* is tested to ensure that each category of user is supported by the interface.
* *Navigability* is tested to ensure that all navigational syntax and semantics are exercised to uncover any navigational errors.
* *Performance* is tested under a variety of operating conditions to ensure that the system is responsive to user interaction and operates without unacceptable operational degradation in contingency situations.
* *Compatibility* is tested by executing the web application in a variety of different hosts on both the client and server sides.
* *Interoperability* is tested to ensure that the WebApp properly interfaces with other applications and/or databases.
* *Security* is tested by assessing potential vulnerabilities and attempting to exploit each.

The color codes that have been used here signify the extent of testing that the OSM product has undergone in its first version.

Green signifies that the components have been tested according to the described pathway.

Red signifies that the components have not been tested according to the described pathway due to lack of infrastructure but will be tested in the next version.

Violet signifies that the components have been tested partially according to the described pathway and new features will be added in the next version.

Some test cases which we have utilized to test our product:

**Features not to be Tested**

### **Availability**

***Reliability***

***Security***

**Approach strategy**

The following technologies will be used

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Callsign app is planned to be tested in following mobiles types: Iphone and Samsung as per IEEE standards

**Pass/Fail Conditions**

It is expected that test cases must pass all the tests in each test category to be successful.

A retest needs to be performed on any test that have failed.

**Suspension Criteria/Resumption Requirements**

Resumption

* Development of the application is complete
* Successful completion of unit testing for the applications
* Release of software to the test environment
* Dedicated resources are allocated
* Test Cases have been reviewed
* Test environment is up and working
* Build is complete and smoke test has been done.

Suspension

The Following is the criteria when the testing will be stopped for this module:

* The test cases have all been executed.
* At least 95% have passed successfully and The remaining 5% that have failed do not impact critical functionality
* The test results have been evaluated reviewed and accepted.
* There are no showstoppers or high criticality defects unresolved or outstanding

**Remaining Test Tasks**

|  |  |  |
| --- | --- | --- |
| **Task** | **Assigned To** | **Status** |
| Create Mobile Test Framework | Automation Tester |  |
| Verify the Mobile Test Resource Plan | Test Manager |  |
| Create Test Data Sheet | Test Engineer |  |
| Verify emulator prototype | Test Lead |  |
| Verify Cloud Computing Environment | Environment Manager |  |

**Environmental Needs**

The following elements are required to support the overall test at all levels within the mobile project:

* Access to both development and production based emulators and mobile applications.
* An exclusive test environment for performance testing as it should impact the regular test executions of other test cycles.

**Staffing and Training Needs**

Preferred to have exclusive test resource for performance testing.

All testers need relevant training as it is essential to undergo custom based application training before test execution.

**Responsibilities**

Responsibilities of the testing team for the project are as follows:

Test Execution Signoff: Test Manager

Test Evidences Signoff: Business Analyst

End of Test Report Sign off: Project Manager

**Schedule**

Overall testing schedule will be decided with the project manager.

**Planning Risks and Contingencies**

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. In case of a of a hardware failure or database corruption, a replacement page will be shown. Also in case of a hardware failure or database corruption, backups of the database should be retrieved from the server and saved by the administrator. Then the service will be restarted.

**Approvals**

Test Plan Approval-CTO