

Software Requirement Specification

For

ElectroWorld

(The Marketplace)

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1.Introduction

E-commerce, which is now an integral part of many businesses, is used primarily to boost sales revenue, to attract new customers and to survive in today's competitive business environment. Also, it has benefitted the customers as they now have easy access to a wide range of goods and services at anytime and anywhere in the world. The Marketplace provide the facility to vendors for managing their products through seller-login, while the customers will be able to order and pay for products through customer login. The admin will be able to manage vendors, products, customers and orders through admin login after the verification of seller admin can make approval of particular vendors on Marketplace. In this system only verified vendors can be able to make their profile, for each profile they have to pay for registration charges which are depends on package that they select. Furthermore, there will be an email notification after completing an order.

1.1.Objective (Purpose):

The Marketplace OSS is Web application. It is intended to provide online solution for marketplace staff, vendors as well as consumers as one stop solution platform using internet. OSS will enable sellers to set up onle store. Customers will be able to purchase products through virtual store. OSS would perform online bussiness process automation such as one Shopping Cart management, Order Processing , Payment Processing, Customer Releationship Management as well as Shipment.

1. 2.Scope of Project

The proposed system helps in building a website to buy, sell products or goods online using internet connection. The main purpose of this marketplace is to provide platform for small vendors who don't wantto invest money in creating their own online store but want to sell more. Sellers with dreams to sell nationwide or globally without making a huge investment can join this Marketplace platform. It has been seen that people mostly search for a website where they can get different services under one roof. This increases the demand for a multi-vendor shopping cart system that is Marketplace which helps a customer to access multiple vendor's products at a time. As of now admin can validate the vendors by visiting vender's stores manually or by calling on phone which Admin can get some information about vendors. In future the validation of vendors can be managed by checking their PAN numbers

2. Definition:

ElectroWorld (The Marketplace) SRS-Software Requirement

Specification.

GUI-Graphical User Interface.

Stake Holder-The person who will participate in the system (Admin, Seller, Customers).

1.3 Audience, Acronyms and Abbreviations

1.3.1 Intended Audiences

The intended readers of this document are the developers of the site, testers, website owners, managers and coordinators. They might review the document to learn about the project and to understand the requirements.

1.3.2 Acronyms and Abbreviations

| | |
|--------------|--|
| C-DAC | Centre for Development of Advanced Computing |
| SRS | Software Requirement Specifications |
| RDBMS | Relational Database Management System |
| SQL | Structured Query Language |
| HTML | Hypertext Mark-up Language |
| CSS | Cascading Style Sheet |
| HTTP | Hypertext Transfer Protocol |
| WW | Wander Wonder |

1.4 Reference : Amazon ,flipcart website .

1.5 Overview :

Overall Description :

The Marketplace provide the facility to sellers for managing their products through sellerlogin, while the customers will be able to order and pay for products through customer login. The admin will be able to manage vendors, products, customers and orders through admin login after the verification of seller admin can make approval of particular vendors on Marketplace.

The project 'The Marketplace' is based on the database, object-oriented programming and networking techniques. As there are many areas where we keep the records in database for which we are using MY SQL software which is one of the best and the easiest software to keep our

information. This project uses React with Bootstrap as the front-end software and has connectivity with MY SQL.

Functional Requirements

Login of Admin o The system will allow the Admin to view the details of Seller as well as add and remove them. o The system will allow the Admin to view the Customers and Customer's order. **Login of Seller** o The system will allow the Seller to add/edit/remove the products o The system will allow the Seller to display their product on homepage **Login of Customer** o The system will allow Customer to add/remove products to his cart o The system will allow the Customer to view his/her order summary o The system will allow the Customer to view the product on homepage without login

Non-functional Requirements

Performance Requirements

Non-functional requirements are an essential part of any software project, including e-commerce applications. They define the quality attributes and constraints that the software must meet to provide a satisfactory user experience and ensure the system's overall performance, security, and maintainability. Here are some non-functional requirements that are important for an e-commerce software:

1. Performance:

The system shall support a minimum of X concurrent users browsing and shopping simultaneously. Page load times for product listings and checkout shall not exceed X seconds. Response times for search queries and user interactions shall be within X milliseconds. The system shall handle peak traffic loads during special events (e.g., sales, holidays) without degradation in performance.

2. Scalability:

The architecture shall be designed to easily scale horizontally to accommodate increased user demand. The system shall be able to handle a 20% growth in user base annually for the next three years.

3. **Availability and Reliability:** The system shall have an uptime of at least 99.9%. The recovery time for system failures shall not exceed X minutes. Redundancy and failover mechanisms shall be in place to ensure continuous operation in case of server or component failures.
4. **Security:** User authentication and authorization shall be implemented securely to prevent unauthorized access. Payment transactions shall be encrypted using industry-standard security protocols. Personally identifiable information (PII) and payment information shall be stored and transmitted securely.
5. **Usability and User Experience:** The user interface shall be intuitive and easy to navigate, ensuring a positive user experience. The system shall be accessible to users with disabilities, complying with relevant accessibility standards.
6. **Compatibility:** The application shall be compatible with commonly used web browsers (e.g., Chrome, Firefox, Safari) and mobile devices (iOS and Android).
7. **Compliance:** The system shall comply with relevant data protection regulations (e.g., GDPR, CCPA). Payment processing shall comply with Payment Card Industry Data Security Standard (PCI DSS) requirements.
8. **Maintainability:** The codebase shall follow coding standards and best practices to ensure ease of maintenance. Documentation shall be provided for the system architecture, codebase, and deployment processes.
9. **Performance Testing:** The system shall undergo load testing to verify its performance under different traffic conditions. Stress testing shall be conducted to determine the system's breaking point and response during high loads.
10. **Data Management:** Data integrity and consistency shall be maintained during high traffic and concurrent usage. Backup and recovery mechanisms shall be in place to prevent data loss.
11. **Internationalization and Localization:** The system shall support multiple languages, currencies, and regions to cater to a global user base.

12. **Disaster Recovery:** The system shall have a disaster recovery plan in place to restore functionality in case of catastrophic events.
13. **Monitoring and Reporting:** The system shall provide comprehensive logs and monitoring tools to track system health and performance. Reports and analytics shall be available to analyze user behavior, sales trends, and other key metrics.

2. Existing System and Its Improvement:

2.1 Existing System:

The current system for shopping is to visit the shop manually and from the available product choose the item customer want and buying the item by payment of the price of the item . 1. It is less userfriendly

Table of Contents (Business Model)

1. List of Functions

2. Functional Description

1. List of Functions

| Sr. No. | Function ID | Name of Function |
|---------|-------------|---------------------------------|
| 1. | F-1 | Buying and selling of products. |
| 2. | F-2 | Maintaining stocks of product . |

2. Functional Description :

F-1. Function: Buying and selling of products Function

ID: F-1

Purpose :

Promoting a service or product online. Selling a service or product. Providing product support or customer service. Providing corporate information. Establishing brand awareness and corporate identity.

Organization Unit: Sales Department

Time (when performed) : Daily

Documents Refer: Register maintained by the marketplace company to categorize the different items according to the Price and quality.

Frequency Daily

Data Entities Register containing the information about produc

| | |
|-----------------------------------|---|
| F-2. Function | Maintaining the stocks of marketplace products |
| Function ID | : F-2 |
| Purpose | : Administrative department of the marketplace company takes care of maintaining the stocks of different items . The information contains the prices and quality products no of the products. This is done in order to provide the necessary information along with a product code. |
| Organization Unit | : Administrative Department |
| Time (When Performed) | : Daily |
| Descriptions and Decisions | : The register contains the details of different kind of products like cloths , grocery products, beauty products ,electronic products etc. The Administrative Department notes down the details of every item in the register. |
| Documents | Refer: Product Detail Register |
| Frequency | Daily. |
| Data Entities | Product Detail Register. |

4.4. Hardware Interfaces.

- Processor: - Intel i3 processor or above.
- RAM: - 2 GB or above.
- HD: - 20 GB or above.

4.5. Software Interfaces

The following are needed requirements:

- Operating System: UNIX, Linux, Mac, Windows etc...
- Development tool :
 - Front end ⑦ REACT,Bootstrap
 - Backend ⑦ Spring-Boot ○ Data Base ⑦ MySQL

Functional Diagrams:

1 ER Diagram:



