



Project Submission Guidelines

1. Time Management

- **Ensure you adhere strictly to the deadlines. Timeliness is crucial.**

2. Proper Documentation

- Along with your project submission, prepare and submit proper documentation detailing your project. This documentation should include:
 - **Project Overview:** A brief description of your project.
 - **Objectives:** The main goals and objectives of your project.
 - **Methodology:** The approach and methods you used to complete the project.
 - **Challenges:** Any challenges or hurdles you faced and how you overcame them.
 - **Conclusion:** The final outcome and any recommendations or future steps.

3. Originality

- Your project must be original and not copied from any source. Plagiarism will result in the cancellation of your project submission.

Note

- Regularly update your LinkedIn profile with your progress and achievements, as it is crucial for your career.

E-commerce Website

Submission Date:- 28 – July - 2024

1. Introduction

1.1 Purpose

The purpose of this document is to define the requirements for an e-commerce website that will provide users with a seamless online shopping experience, including product listings, search functionality, filters, product detail pages, shopping cart, checkout process, and user authentication.

1.2 Scope

This SRS covers the development of an e-commerce website that includes features such as product listings, search functionality, filters and sorting, product detail pages, shopping cart, checkout process, user authentication, and responsive design.

1.3 Definitions, Acronyms, and Abbreviations

- UI: User Interface
- UX: User Experience
- SRS: Software Requirements Specification
- API: Application Programming Interface

1.4 References

- E-commerce Website Design Best Practices
- Responsive Web Design Guidelines
- Security Standards for E-commerce Websites

1.5 Overview

This document provides a detailed description of the e-commerce website, including its features, user interactions, and system requirements. It serves as a guide for the development, testing, and deployment of the website.

2. Overall Description

2.1 Product Perspective

The e-commerce website will be a standalone web application accessible on various web browsers. It will integrate with various APIs for providing product data and processing payments.

2.2 Product Functions

- Product Listings: Display a list of products with relevant details.
- Search Functionality: Allow users to search for products by keywords.
- Filters and Sorting: Enable users to filter and sort products based on various criteria.
- Product Detail Page: Provide detailed information about a product.
- Shopping Cart: Allow users to add products to a cart and review them before purchase.
- Checkout Process: Facilitate the purchase of products.
- User Authentication: Allow users to create accounts and log in securely.
- Responsive Design: Ensure the website is usable on various devices.

2.3 User Classes and Characteristics

- Shoppers: Users looking to purchase products.
- Administrators: Users managing the website and product listings.

2.4 Operating Environment

- Web Platforms: Compatible with major web browsers (Chrome, Firefox, Safari, Edge).
- Cloud Services: For data storage and processing.

2.5 Design and Implementation Constraints

- Data Privacy Regulations: Compliance with GDPR, CCPA, and other relevant data protection laws.
- Browser Compatibility: Ensuring the platform works across various web browsers.

2.6 Assumptions and Dependencies

- Users have access to a device with internet connectivity.
- Users have basic familiarity with web navigation.
- Integration with third-party APIs is stable and reliable.

3. System Features

3.1 Product Listings

3.1.1 Description

Displays a list of products available for purchase.

3.1.2 Functional Requirements

- FR1: The system shall display a list of products with images, names, prices, and ratings.
- FR2: The system shall allow users to view product listings in a grid or list format.
- FR3: The system shall paginate the product listings for better navigation.

3.2 Search Functionality

3.2.1 Description

Allows users to search for products using keywords.

3.2.2 Functional Requirements

- FR4: The system shall allow users to search for products by entering keywords.
- FR5: The system shall display search results that match the entered keywords.
- FR6: The system shall suggest products as users type in the search bar.

3.3 Filters and Sorting

3.3.1 Description

Enables users to filter and sort products based on various criteria.

3.3.2 Functional Requirements

- FR7: The system shall provide filters for categories, price ranges, brands, and ratings.
- FR8: The system shall allow users to sort products by price, popularity, and rating.
- FR9: The system shall display the number of products matching the selected filters.

3.4 Product Detail Page

3.4.1 Description

Provides detailed information about a product.

3.4.2 Functional Requirements

- FR10: The system shall display product details, including images, description, price, and reviews.
- FR11: The system shall allow users to view multiple images of the product.
- FR12: The system shall allow users to read and write reviews for the product.

3.5 Shopping Cart

3.5.1 Description

Allows users to add products to a cart and review them before purchase.

3.5.2 Functional Requirements

- FR13: The system shall allow users to add products to a shopping cart.
- FR14: The system shall display the contents of the shopping cart, including product names, prices, and quantities.
- FR15: The system shall allow users to update the quantity or remove products from the cart.

3.6 Checkout Process

3.6.1 Description

Facilitates the purchase of products.

3.6.2 Functional Requirements

- FR16: The system shall guide users through the checkout process, including shipping information, payment method, and order review.
- FR17: The system shall process payments securely.
- FR18: The system shall send order confirmation emails to users.

3.7 User Authentication (Login/Sign-Up)

3.7.1 Description

Allows users to create accounts and log in securely.

3.7.2 Functional Requirements

- FR19: The system shall allow users to create an account with an email address and password.
- FR20: The system shall allow users to log in using their email and password.
- FR21: The system shall support password recovery through email.
- FR22: The system shall send a verification email upon registration.

4. External Interface Requirements

4.1 User Interfaces

- UI1: Home Page
- UI2: Product Listings Page
- UI3: Product Detail Page
- UI4: Shopping Cart Page
- UI5: Checkout Page

- UI6: Login/Sign-Up Page
- UI7: User Profile Page

4.2 Hardware Interfaces

- The platform shall interface with the user's device camera and microphone for video sessions (if applicable).

4.3 Software Interfaces

- The platform shall interface with product data APIs for retrieving product information.
- The platform shall interface with payment gateways for processing payments.

4.4 Communication Interfaces

- The platform shall use HTTPS for secure communication with the server.
- The platform shall use push notifications to alert users of order updates and promotions.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- The platform shall load within 3 seconds.
- Real-time updates for product listings and cart status.

5.2 Safety Requirements

- The platform shall ensure data privacy and security.
- The platform shall comply with relevant health and safety regulations.

5.3 Security Requirements

- Data encryption for user information.
- Secure authentication methods.
- Regular security audits.

5.4 Software Quality Attributes

- Usability: The platform shall be user-friendly and intuitive.
 - Reliability: The platform shall be reliable and available 99.9% of the time.
 - Maintainability: The platform shall be easy to maintain and update.
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6. Appendix

6.1 Glossary

- User: An individual using the e-commerce platform.
- Administrator: A user managing the e-commerce platform and product listings.

6.2 Analysis Models

- Use Case Diagrams: Visual representation of user interactions with the platform.
- Data Flow Diagrams: Illustrate the flow of data within the system.

6.3 Issues List

- Issue 1: Ensuring compatibility with various web browsers.
- Issue 2: Maintaining user data privacy.
- Issue 3: Integrating with multiple third-party APIs.