**Requirements Document for A Simple E-commerce Website**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the requirements for developing a simple e-commerce website. This website will allow users to browse products, add them to a shopping cart, and make purchases online.

**1.2 Scope**

This document covers the functional and non-functional requirements for the e-commerce website. It includes user interface requirements, system requirements, and constraints.

**1.3 Definitions, Acronyms, and Abbreviations**

* **UI**: User Interface
* **UX**: User Experience
* **CMS**: Content Management System

**2. Functional Requirements**

**2.1 User Registration and Authentication**

* Users should be able to create an account using their email address and a password.
* Users should be able to log in and log out.
* Password recovery functionality should be available.

**2.2 Product Catalogue**

* The website should display a list of products with details such as name, description, price, and image.
* Users should be able to search for products by name or category.
* Products should be categorised for easy navigation.

**2.3 Product Details**

* Users should be able to view detailed information about a product, including multiple images, detailed description, price, and availability.

**2.4 Shopping Cart**

* Users should be able to add products to a shopping cart.
* Users should be able to view the contents of their shopping cart.
* Users should be able to update the quantity of items in their cart.
* Users should be able to remove items from their cart.

**2.5 Checkout Process**

* Users should be able to proceed to checkout from the shopping cart.
* Users should be able to enter shipping information.
* Users should be able to select a payment method (e.g., credit card, PayPal).
* Users should receive an order confirmation email after completing a purchase.

**2.6 Order Management**

* Users should be able to view their order history.
* Users should be able to track the status of their orders.

**2.7 Admin Panel**

* Admins should be able to add, update, and delete products.
* Admins should be able to view and manage orders.
* Admins should be able to manage user accounts.

**3. Non-Functional Requirements**

**3.1 Performance**

* The website should load within 3 seconds on a standard broadband connection.
* The website should handle up to 100 concurrent users without performance degradation.

**3.2 Security**

* User data should be encrypted during transmission using SSL.
* Passwords should be stored securely using hashing algorithms.
* The website should be protected against common security threats such as SQL injection and cross-site scripting (XSS).

**3.3 Usability**

* The website should have a clean and intuitive user interface.
* The website should be responsive and work on various devices (desktop, tablet, mobile).

**3.4 Scalability**

* The website should be designed to accommodate future growth in terms of products and users.

**3.5 Maintainability**

* The website code should be well-documented.
* The website should be built using a modular architecture to facilitate updates and maintenance.

**4. Constraints**

**4.1 Technology Stack**

* The website should be developed using HTML, CSS, JavaScript, and a backend framework such as Node.js, Django, or Ruby on Rails.
* The database should be MySQL or PostgreSQL.

**4.2 Budget and Timeline**

* The project budget is £10,000.
* The project should be completed within 3 months.

**5. Assumptions and Dependencies**

**5.1 Assumptions**

* Users have access to the internet and a modern web browser.
* Payment gateway integration will be handled by a third-party service.

**5.2 Dependencies**

* The project depends on the availability of a hosting service.
* The project depends on the timely provision of product data from the client.