**Software Requirements Specification (SRS) for Demoblaze**

**1. Introduction**

**1.1 Purpose**

This document provides the software requirements specification (SRS) for **demoblaze.com**, an e-commerce website. The purpose of this SRS is to outline the functional and non-functional requirements for the development and testing of the website.

**1.2 Scope**

**Demoblaze.com** is an online store that allows users to browse, search, purchase, and manage electronics products such as mobile phones, laptops, and accessories. The system will include features such as product search, login, shopping cart management, and order checkout. The website will cater to a wide range of users, from casual visitors to registered customers.

**1.3 Definitions, Acronyms, and Abbreviations**

* **SRS**: Software Requirements Specification
* **UI**: User Interface
* **API**: Application Programming Interface
* **SSL**: Secure Sockets Layer
* **DB**: Database

**1.4 References**

* Website: <https://www.demoblaze.com>

**2. Overall Description**

**2.1 Product Perspective**

**Demoblaze.com** is a standalone e-commerce website. It does not interact with other systems but allows users to browse a product catalog, register/log in, add items to the shopping cart, and make purchases.

**2.2 Product Features**

* **User Registration & Login**: Users can register for an account and log in to access personalized features such as the shopping cart.
* **Product Catalog**: Users can browse a list of products, filter by category, and search for specific products.
* **Shopping Cart**: Users can add products to their cart and proceed to checkout.
* **Checkout**: Users can provide shipping and payment details to complete an order.
* **Admin Panel**: Admins can add, edit, or remove products and view customer orders.

**2.3 User Classes and Characteristics**

* **End Users**: Customers who browse the site, view products, and make purchases.
* **Admins**: Users responsible for managing the product catalog, user accounts, and orders.
* **System Administrators**: Users responsible for maintaining the server and ensuring uptime.

**2.4 Operating Environment**

* The system will be accessible via modern web browsers such as Chrome, Firefox, Edge, and Safari.
* The website will be optimized for both desktop and mobile devices.

**3. System Features**

**3.1 User Registration and Login**

**Description:**

Users must be able to create an account with a username, email, and password. After registration, users can log in with their credentials.

**Functional Requirements:**

* FR1: The system shall allow users to register with a valid username, email, and password.
* FR2: The system shall allow users to log in with their registered username and password.
* FR3: The system shall validate user credentials and display an error message for incorrect login attempts.

**3.2 Product Search and Browse**

**Description:**

Users should be able to search for products by name and filter products by category (e.g., phones, laptops).

**Functional Requirements:**

* FR4: The system shall provide a search bar for users to find products.
* FR5: The system shall display search results based on product name or description.
* FR6: The system shall allow users to filter products by category.

**3.3 Shopping Cart**

**Description:**

Users can add products to their shopping cart, view the cart, and proceed to checkout.

**Functional Requirements:**

* FR7: The system shall allow users to add products to their shopping cart.
* FR8: The system shall display the contents of the cart.
* FR9: The system shall allow users to remove items from the cart.

**3.4 Checkout and Payment**

**Description:**

Users can proceed to checkout and provide shipping and payment details to complete an order.

**Functional Requirements:**

* FR10: The system shall allow users to enter shipping details.
* FR11: The system shall allow users to provide payment details (credit card, PayPal, etc.).
* FR12: The system shall process the payment and display an order confirmation.

**4. External Interface Requirements**

**4.1 User Interfaces**

* **Homepage**: Displays featured products, search bar, navigation menu, and login/register buttons.
* **Product Page**: Displays product details, an "Add to Cart" button, and product images.
* **Cart Page**: Displays the items in the cart and options to proceed to checkout or remove items.
* **Checkout Page**: Displays forms for entering shipping and payment details.

**4.2 Hardware Interfaces**

* **Web Server**: The website will be hosted on a web server with a minimum of 2GB of RAM and 50GB of storage.
* **Client Devices**: Desktop and mobile devices with modern browsers.

**5. Non-Functional Requirements**

**5.1 Performance Requirements**

* The website shall load within 3 seconds for 95% of users.
* The system shall be able to handle 500 simultaneous users without performance degradation.

**5.2 Security Requirements**

* All user data (passwords, payment details) shall be encrypted using SSL.
* Users shall be required to log in to access the shopping cart and checkout features.

**5.3 Usability Requirements**

* The system shall be intuitive and easy to navigate.
* The website shall be fully responsive and accessible on mobile devices.

**5.4 Availability Requirements**

* The website shall be available 24/7 with an uptime of 99.9%.
* The system shall provide user support via email and live chat.

**6. Appendix**

**6.1 Glossary**

* **User**: A person who accesses the website to browse or purchase products.
* **Admin**: A person responsible for managing the website's content and user interactions.
* **Cart**: A collection of items a user intends to purchase.