# **Software Requirements Specification - PETSTORE**

# **Overview**

This document describes the Software Requirements Specification (SRS) for the Petstore website. It provides an overview of the product, references, definitions, and guidelines for developing a high-quality system.

## **1.1 Scope**

The Petstore website is an online platform that enables users to browse, search, and purchase pets and related products. Users can register, login, add items to a cart, and place orders. Admins manage product listings and orders.

# **2. References**

* IEEE Std 830-1998: IEEE Recommended Practice for Software Requirements Specifications.
* Petstore Web Application: <https://petstore.octoperf.com/actions/Catalog.action>

# **3. Definitions**

* **User**: A visitor interacting with the Petstore website.
* **Admin**: A person managing products and orders.
* **Cart**: A virtual basket to collect products before checkout.
* **SRS**: Software Requirements Specification.

# **5. The parts of an SRS**

## **5.1 Introduction (Section 1 of the SRS)**

### **5.1.1 Purpose**

The purpose of this document is to define the requirements for the Petstore website. It serves as a foundation for design, development, testing, and maintenance.

### **5.1.2 Scope**

The Petstore website provides a platform for online pet shopping. Users can browse categories, search for products, view product details, add items to a cart, and place orders.

### **5.1.3 Definitions, Acronyms, and Abbreviations**

* **User**: Website visitor
* **Admin**: Manager of the product catalog
* **Cart**: Virtual shopping basket
* **HTTPS**: Secure Hypertext Transfer Protocol

### **5.1.4 References**

* IEEE Std 830-1998 Standard
* [Petstore Demo Website](https://petstore.octoperf.com/actions/Catalog.action)

### **5.1.5 Overview**

This document details the functional, non-functional, and interface requirements of the Petstore website, organized per IEEE 830-1998 format.

## **5.2 Overall description**

### **5.2.1 Product Perspective**

The Petstore website is a new standalone web application with a frontend interface and a backend server with a database.

### **5.2.2 Product Functions**

* User Registration and Login
* Product Browsing and Search
* Shopping Cart Management
* Checkout and Order Placement
* Admin Product Management

### **5.2.3 User Characteristics**

* Basic internet users with familiarity in browsing websites.
* Admins familiar with inventory operations.

### **5.2.4 Constraints**

* Must be accessible on Chrome, Firefox, and Edge browsers.
* Responsive design for mobile and desktop devices.
* Limited to the product categories available (Fish, Dogs, Cats, etc.).

### **5.2.5 Assumptions and Dependencies**

* Stable internet connectivity is available.
* Web server and database server are configured correctly.
* Email service for notifications is functional.

## **5.3 Specific requirements**

## **5.3.1 External Interface Requirements**

#### **5.3.1.1 User Interfaces**

* Homepage: Categories, highlights, search bar.
* Login/Signup Page
* Product Listing Pages
* Product Detail Page
* Shopping Cart View
* Checkout Page
* Order Confirmation Page

#### **5.3.1.2 Hardware Interfaces**

* Web Server Hosting (Cloud or Dedicated)
* No special hardware interfaces.

#### **5.3.1.3 Software Interfaces**

* Frontend: HTML, CSS, JavaScript
* Backend: Java (Servlets/JSP)
* Database: MySQL or PostgreSQL

#### **5.3.1.4 Communications Interfaces**

* HTTPS Protocol for secure communications.

### **5.3.2 Functional Requirements**

* User Registration and Login
* Product Search and Browse
* Add to Cart and Remove from Cart
* View and Edit Cart
* Checkout and Place Orders
* Admin Panel to Manage Products

### **5.3.3 Performance Requirements**

* Homepage should load in under 3 seconds.
* Search results should return within 2 seconds.
* Handle at least 100 concurrent users.

### **5.3.4 Design Constraints**

* Must be responsive (Desktop and Mobile).
* Backend server must be Java-based.
* Database must be relational.

### **5.3.5 Software System Attributes**

#### **5.3.5.1 Reliability**

* 99.5% uptime.

#### **5.3.5.2 Availability**

* Available 24/7 with minimal downtime.

#### **5.3.5.3 Security**

* HTTPS connection required.
* Passwords encrypted in the database.

#### **5.3.5.4 Maintainability**

* Modular coding approach.
* Clear documentation for each module.

#### **5.3.5.5 Portability**

* Should work across Windows, Mac, Linux systems.

## **5.4 Supporting information**

* User manuals will be provided post-deployment.
* FAQs section to be integrated for user assistance.