Software Requirements Specification (SRS) Document

Note
This document is intended for reference purposes only. A full and detailed document will be provided after the development phase.

1. Introduction
1.1 Purpose
This document outlines the software requirements for a website that provides device information, warranty status, and driver updates, similar to the functionalities of the Dell Support website.
1.2 Scope
The website will offer the following functionalities:
- Automatic device detection and display of BIOS information.
- Warranty status lookup for registered devices.
- Latest driver updates for the detected or specified device.

1.3 Definitions, Acronyms, and Abbreviations
- BIOS: Basic Input/Output System
- SRS: Software Requirements Specification

1.4 References
- Client’s initial requirements document
- Industry standards for software documentation

2. Overall Description
2.1 Product Perspective
The website will function as an independent web application, accessible via standard web browsers, offering support services for device owners.
2.2 Product Functions
- Device Information Retrieval: Automatically detect and display device BIOS information.
- Warranty Status: Provide warranty status for devices registered in the database.
- Driver Updates: Offer the latest drivers for the detected or specified device.

2.3 User Classes and Characteristics
- End Users: Individuals seeking information about their devices, warranty status, and driver updates.
- Administrators: Manage the database of registered devices and driver updates.

2.4 Operating Environment
- Web-based application accessible via modern browsers (Chrome, Firefox, Safari, Edge).

2.5 Design and Implementation Constraints
- Implement security measures to protect user data and device information.
- Ensure compatibility with various devices and operating systems.

2.6 Assumptions and Dependencies
- BIOS information can be accessed and interpreted correctly.
- The database of registered devices and drivers is maintained and updated regularly.

3. Functional Requirements
3.1 Device Information Retrieval
3.1.1 Description
Users can click on a "Detect My Device" button to automatically retrieve and display their device's BIOS information.
3.1.2 Functional Requirements
- FR1: The system shall provide a button labeled "Detect My Device".
- FR2: Upon clicking the button, the system shall retrieve device information from the BIOS.
- FR3: The system shall display the retrieved device information to the user.

3.2 Warranty Status Check
3.2.1 Description
Users can check the warranty status of their device if it is registered in the database.
3.2.2 Functional Requirements
- FR4: The system shall query the database to check if the device is registered.
- FR5: The system shall display the warranty status if the device is found in the database.
- FR6: The system shall prompt the user to register the device if it is not found.

3.3 Latest Drivers Check
3.3.1 Description
Users can check for the latest drivers available for their device.
3.3.2 Functional Requirements
- FR7: The system shall provide a section to check for the latest drivers.
- FR8: The system shall query the database for the latest drivers based on the device information.
- FR9: The system shall display a list of available drivers for download.

4. Interface Requirements
4.1 User Interfaces
- UI1: Main Page with options to "Detect My Device", "Check Warranty Status", and "Check Latest Drivers".
- UI2: Device Information Page displaying retrieved BIOS information.
- UI3: Warranty Status Page showing warranty details if registered.
- UI4: Drivers Page listing available driver updates.

4.2 Hardware Interfaces
- No direct hardware interfaces; all interactions are through the web application.

4.3 Software Interfaces
- Database for storing registered device information and drivers.
- BIOS interface for retrieving device information.

5. Non-functional Requirements
5.1 Performance Requirements
- The system should retrieve and display device information within 5 seconds.
- The system should handle up to 1000 concurrent users without performance degradation.

5.2 Security Requirements
- User data should be encrypted in transit and at rest.
- Only authorized administrators should have access to the device and driver database.

5.3 Usability Requirements
- The website should be intuitive and easy to navigate.
- Information should be clearly presented and accessible.

5.4 Reliability Requirements
- The system should have 99.9% uptime.
- The system should be able to recover from failures without data loss.

6. Appendices
6.1 Glossary
- BIOS: Basic Input/Output System
- SRS: Software Requirements Specification

Quote for Website Development

1. Project Scope

This project involves the development of a web application using the MERN stack (MongoDB, Express.js, React.js, Node.js) that includes the following functionalities:
1. Automatic device detection and display of BIOS information.
2. Warranty status lookup for registered devices.
3. Latest driver updates for the detected or specified device.

Features:

1. Home Page:
   Options to "Detect My Device", "Check Warranty Status", and "Check Latest Drivers".
2. Device Information Retrieval:
   Button for "Detect My Device".
   Display of device BIOS information.
3. Warranty Status Check:
   Query database for registered devices.
   Display warranty status or prompt for device registration.
4. Latest Drivers Check:
   Section to check and display latest drivers.
   List available driver updates for download.

2. Cost Breakdown

Development Costs

Task	Total Cost
Project Planning & Management	Rs. 1,000
Frontend Development	Rs. 2500
Backend Development	Rs.3500
Database Setup & Integration	Rs. 2,000
Device Detection Integration	Rs. 2,000
Warranty & Drivers API Setup	Rs.2,000
Testing & Quality Assurance	Rs. 1,000
Documentation	Rs. 1,000
Total Estimated Cost	**Rs.15,000**

3. Timeline

The project is expected to take approximately 10 weeks to complete, with the following milestones:

Day 1-2: Project Planning & Setup
Day 3-6: Frontend Development
Day 7-10: Backend Development & Database Integration
Day 10-14: Device Detection & Warranty/Drivers API Integration
Day 14: Testing & Quality Assurance
day 15: Final Review & Documentation

4. Payment Terms

Initial Deposit: 30% of the total project cost ($6,300) due upon agreement signing.
Progress Payment: 40% of the total project cost ($8,400) due at the halfway point (Week 5).
Final Payment: 30% of the total project cost ($6,300) due upon project completion and client approval.

5. Acceptance

By signing below, you agree to the terms and conditions outlined in this quote and authorize [Your Company] to proceed with the development of the web application as specified.

Client Signature: _____
Date:_____

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