**Software Requirements Specification (SRS) for Sports Management System**

**Introduction**

**1.1 Purpose**

This document specifies the requirements for the Sports Management System, designed to automate player registration, event scheduling, score tracking, and report generation for sports organizations.

**1.2 Scope**

The system will manage player information, event schedules, and team data, accessible by users with different roles (Admin, Coach, Player).

**1.3 Definitions, Acronyms, and Abbreviations**

* **SRS:** Software Requirements Specification
* **GUI:** Graphical User Interface
* **DBMS:** Database Management System

**1.4 References**

* Java Documentation: Oracle Java Documentation
* MySQL Documentation: MySQL Documentation

**1.5 Overview**

This document includes system functionalities, performance criteria, and interface descriptions.

**Overall Description**

**2.1 Product Perspective**

The system is a standalone application integrating with existing IT infrastructure to streamline sports management processes.

**2.2 Product Functions**

* **User Authentication:** Secure login with role-based access.
* **Player Management:** Manage player details.
* **Event Scheduling:** Create and manage events.
* **Score Tracking:** Record and update scores.
* **Report Generation:** Generate performance and event reports.

**2.3 User Classes and Characteristics**

* **Admin:** Full access to system features.
* **Coach:** Access to player and event management.
* **Player:** Access to personal performance and schedules.

**2.4 Operating Environment**

* **OS:** Windows/Linux/MacOS
* **Database:** MySQL or SQLite
* **Programming Language:** Java

**2.5 Design and Implementation Constraints**

* Developed using Java and SQL.
* Scalable for large data sets.
* Ensures data security.

**2.6 Assumptions and Dependencies**

* Users have basic computer skills.
* Stable database connection required.

**System Features**

**3.1 User Authentication**

* **REQ-1.1:** Validate user credentials.
* **REQ-1.2:** Admins manage user accounts.
* **REQ-1.3:** Log user activities.

**3.2 Player Management**

* **REQ-2.1:** Admins add new players.
* **REQ-2.2:** Update player details.
* **REQ-2.3:** Delete player records.
* **REQ-2.4:** Search and filter player list.

**3.3 Event Scheduling**

* **REQ-3.1:** Schedule events.
* **REQ-3.2:** Notify players of events.
* **REQ-3.3:** View event details.

**3.4 Score Tracking**

* **REQ-4.1:** Input event scores.
* **REQ-4.2:** Update player stats based on scores.
* **REQ-4.3:** Display score summaries.

**3.5 Report Generation**

* **REQ-5.1:** Generate performance reports.
* **REQ-5.2:** Create team standings reports.
* **REQ-5.3:** Export reports to PDF/Excel.

**External Interface Requirements**

**4.1 User Interfaces**

* GUI with Java Swing/JavaFX.
* Menu-driven navigation.

**4.2 Hardware Interfaces**

* Standard PC input/output devices.

**4.3 Software Interfaces**

* MySQL database integration.

**4.4 Communications Interfaces**

* TCP/IP for client-server communication.

**Other Non-Functional Requirements**

**5.1 Performance Requirements**

* Handle up to 5,000 players and 500 events annually.

**5.2 Safety Requirements**

* Ensure data integrity and regular backups.

**5.3 Security Requirements**

* Encrypt user passwords and enforce role-based access.

**5.4 Software Quality Attributes**

* **Usability:** Intuitive interface.
* **Reliability:** 99.9% uptime.
* **Maintainability:** Modular, well-documented code.

**5.5 Business Rules**

* Unique Player ID required.
* Admins manage user roles and records.

**Other Requirements**

**6.1 Database Backup**

* Automatic daily backups.

**6.2 System Documentation**

* Includes user manual and technical documentation.

**6.3 Training**

* Provide training for system users.

**Requirements Traceability Matrix (RTM)**

| **Requirement ID** | **Description** | **Status** |
| --- | --- | --- |
| R1 | Support player management. | In Progress |
| R2 | Enable event scheduling. | Completed |
| R3 | Track and update scores. | Not Started |
| R4 | Generate performance reports. | In Progress |

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