**System Requirements Document (SRD) Template**

**Phase 1: Problem Definition and System Overview**

**1. Introduction**

* **Purpose**: Clearly define the purpose of the system.
* **Scope**: Specify the system boundaries and what it includes.
* **Audience**: Identify stakeholders and intended readers.
* **References**: List relevant documents, standards, or sources.

**2. Business Case**

* **Problem Statement**: Describe the issue being addressed.
* **Objectives**: Outline the goals and expected benefits.
* **Stakeholders**: Identify key individuals and groups affected.

**3. Overall System Description**

* **System Overview**: Briefly describe the system functionality.
* **User Needs**: Define what users require from the system.
* **Constraints**: Highlight any limitations or restrictions.

**Phase 2: Functional and Non-Functional Requirements**

**4. Functional Requirements**

* Clearly list system functions with testable criteria.
* Prioritize based on importance.

**5. Non-Functional Requirements**

* **Performance**: Define response time, availability, etc.
* **Security**: Detail authentication, encryption, and access controls.
* **Usability**: Describe user experience expectations.
* **Compliance**: List any regulations or industry standards.

**6. Use Cases and Scenarios**

* Define user roles and interactions with the system.
* Provide step-by-step use case diagrams and descriptions.

**7. System Models and Diagrams**

* **UML Diagrams**: Use Case, Class, Sequence, etc.
* **Data Flow Diagrams (DFD)**: Illustrate system processes.
* **Entity-Relationship Diagrams (ERD)**: Define data relationships.

**8. Data Requirements**

* **Inputs**: Describe data sources and formats.
* **Storage**: Specify database requirements.
* **Validation Rules**: Define constraints and data integrity measures.

**9. System Interfaces**

* **User Interfaces**: Describe GUI expectations.
* **External Interfaces**: APIs, third-party integrations, etc.

**Phase 3: Constraints, Risks, and Testing Plan**

**10. Constraints and Dependencies**

* Identify system limitations and external dependencies.

**11. Performance and Quality Attributes**

* Define metrics for **scalability, maintainability, and reliability**.

**12. Security Considerations**

* Describe **authentication, data protection, and audit mechanisms**.

**13. Risk Analysis and Mitigation Strategies**

* Identify potential risks and mitigation plans.

**14. Testing and Validation Plan**

* **Acceptance Criteria**: Define what constitutes system success.
* **Test Scenarios**: Outline test cases and expected results.

**15. Glossary and References**

* Define technical terms.
* List relevant sources and citations.