**Software Requirements Specification (SRS)**

**Definition:**

A **Software Requirements Specification (SRS)** is a detailed document that describes the expected behavior, functionalities, and constraints of a software system. It serves as a formal agreement between stakeholders (like clients and developers) about what the software will do.

**Purpose of SRS:**

* Defines what the software must do (functional requirements) and how it should perform (non-functional requirements).
* Acts as a reference for developers, testers, and project managers.
* Helps avoid misunderstandings and reduces development risks.

**Main Components of an SRS Document:**

1. **Introduction**
   * Purpose, scope, definitions, and overview of the software.
2. **Overall Description**
   * General factors affecting the product: user needs, system constraints, and assumptions.
3. **Specific Requirements**
   * **Functional Requirements:** Actions the system must perform.
   * **Non-Functional Requirements:** Performance, usability, security, etc.
4. **Interface Requirements**
   * User interfaces, APIs, and hardware/software interfaces.

**Example:**

* **Functional:** The system shall allow users to register using email and password.
* **Non-Functional:** The system should load any page within 2 seconds.