

❖ **Assignment No: 5**

❖ **Problem Statement:** Prepare Software Requirement Specification for any project or problem statement

❖ **Objective:**

- To define and document the functional and non-functional requirements of the Gmail login page.
- To ensure that all features, including user authentication, input validation, and security measures, are clearly specified.
- To provide a reference for developers and testers to implement and verify the login functionality efficiently.

❖ **Hardware Requirements:** Intel Core i3 or higher Processor, 4 GB RAM, 250 GB Hard Disk

❖ **Software Requirements:** Windows 10 / Linux / macOS Operating System, Google Chrome / Mozilla Firefox / Microsoft Edge Browser, Test Management Tool (e.g., Excel, Jira)

❖ **Theory:**

- **What is a Software Requirement Specification (SRS)?**

An SRS is a detailed document that describes the system's functional and non-functional requirements. It serves as a blueprint for developers and testers, providing clear guidelines about what the software should do and how it should perform under various conditions.

- **Purpose:**

1. To clearly specify the features and functionality of the Gmail login page.
2. To ensure that all stakeholders, including developers and testers, have a shared understanding of the requirements.
3. To provide a foundation for design, development, and testing activities.

- **Scope:**

The Gmail login page includes the following functionalities:

1. User Authentication: Input validation for email/phone and password fields, login, logout, and 2-step verification.
2. Navigation: Proper functioning of buttons and links such as “Next,” “Forgot Password,” and “Create Account.”
3. Security: CAPTCHA, strong password validation, and secure session management.
4. Error Handling: Display of clear messages for invalid credentials, empty fields, or account issues.
5. Usability: Responsive design, accessibility, and user-friendly interface for all devices.

A. Functional Requirements:

- FR1: User must be able to enter a valid email or phone number.
- FR2: User must be able to enter a valid password.
- FR3: User must be able to click “Next” to proceed to password verification.
- FR4: “Forgot Password” link must allow users to recover their account.
- FR5: System must validate input formats and show proper error messages.
- FR6: CAPTCHA should appear when suspicious activity is detected.
- FR7: Two-step verification should work as expected for added security.

B. Non-Functional Requirements:

- Performance: Page should load within 3 seconds under normal network conditions.
- Security: HTTPS protocol, encrypted passwords, and secure session handling.
- Reliability: Login page should be accessible 99% of the time.
- Usability: Intuitive layout, mobile-friendly, and consistent behavior across browsers.

❖ **Conclusion:**

This SRS exercise helped in understanding how to define, document, and organize software requirements systematically. By specifying both functional and non-functional requirements for the Gmail login page, I learned how to provide clear guidelines for developers and testers. This ensures that the login page is secure, user-friendly, and reliable, highlighting the importance of proper requirement specification in software development.