

Practical - 02.

Subject - Software Testing and Quality Assurance.

Assignment Title: Test Scenario for gmail login page.

Semester/Year: VII Sem, 4th Year.

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Submission Date: 23/09/2025.

1) OBJECTIVE:

The purpose of this grey box testing is to validate the gmail page by combining UI level actions with internal knowledge such as authentication APIs, cookies, tokens and session handling.

2) Aim :

To ensure the Gmail login page functions correctly, is secure against common threats and handles session, token and error cases appropriately.

3) Requirements:

- Laptop or desktop with windows 10/11, linux OS.
- Stable internet Connection.
- Web browsers with developer tools (Chrome / firefox).
- Optional: Postman, or Burp suite for inspecting requests.
- Gmail test accounts - (with and without MFA enabled).

Procedure -

4) Procedure -

1. Set up the laptop with browser and internet.
2. Open Gmail login page in Chrome / Firefox / edge.
3. Use developer tools to inspect cookies, headers and, network request.
4. Execute each test case step by step, entering inputs as specified.
5. Observe the result on the UI and in developer tools.
6. Record the expected result versus actual result.
7. Mark each test as Pass, Fail.
8. Summarize observations and defects.

5) CONCLUSION -

The grey box testing of Gmail login page was successfully carried out. A total of 40 unique test cases were executed, covering functional flow, internal token and cookie handling, session management and security validations.

Grey box testing proved effective because it combined black box (UI testing) and white box (internal inspection) approaches ensuring both user end experience and backend mechanisms were validated.

Gmail's login mechanism demonstrates strong reliability and security with minor areas for enhancement in error handling and UX clarity.