

DETAILED TEST EXECUTION SAMPLE REPORT

Tutorial 1: Test Case Design and Execution for Web-based Login and Registration System

1. Report Title

Design, Documentation, and Execution of Test Cases for a Web-based Login and Registration System

2. Objective

The objective of this practical is to analyze and validate a real-world web application — specifically a login and registration system by designing comprehensive test scenarios and executing them systematically to ensure each functionality works as intended. This process mimics real software quality assurance practices and teaches how to detect faults, report bugs, and document findings effectively.

3. Project Overview

- Application Name: Login and Registration System
- Technology Stack: PHP, HTML, CSS, MySQL
- Application Type: Web-based
- Deployment Environment: XAMPP (Localhost Server)
- Application URL: <http://localhost/login-registration>
- Purpose of Application:
To allow users to register with email and password, log in using valid credentials, access a protected dashboard, and securely log out.

4. Tools and Software Used

Tool Name	Purpose
Google Chrome	Browser for testing web application
XAMPP	Local development server (PHP + MySQL)
Visual Studio Code	Editing HTML/PHP source files
Excel / Google Sheets	Documenting test cases
Snipping Tool	Capturing test execution screenshots
Windows 10	Operating System

5. Functional Modules of the Application

Module	Function Description
Registration	Allows new users to register using email and password. Validates input fields.
Login	Authenticates users based on registered credentials.
Dashboard	A protected page only accessible to authenticated users.
Logout	Logs the user out, destroys the session, and redirects to the login page.

6. Test Scenarios (High-Level Functional Coverage)

Sr. No.	Module	Test Scenario Description
1	Registration	Verify registration with valid data
2	Registration	Verify that invalid email formats are not accepted
3	Login	Check login with correct credentials
4	Login	Ensure error appears with incorrect credentials
5	Dashboard	Prevent unauthorized access to the dashboard
6	Logout	Ensure logout ends session and redirects to login page

7. Detailed Test Case Table with Execution Results

TC ID	Module	Test Case Description	Input Data	Expected Output	Actual Output	Status
TC01	Registration	Register with valid email/password	Email: user@test.com Password: Abc@123	User registered and redirected to login page	Registered successfully, redirected to login	Pass
TC02	Registration	Invalid email format	Email: usertest.com Password: Abc@123	Error message: "Invalid Email Format"	Error message displayed properly	Pass
TC03	Login	Login with valid credentials	Email: user@test.com Password: Abc@123	Redirect to dashboard	Dashboard page opened successfully	Pass
TC04	Login	Login with incorrect credentials	Email: user@test.com Password: wrongpass	Error message: "Invalid credentials"	Appropriate error displayed	Pass
TC05	Dashboard	Access without logging in	URL: /dashboard.php (directly in browser)	Redirect to login page	Redirected to login page	Pass
TC06	Logout	Logout and session destruction	Logged-in user → Click "Logout" button	Session destroyed, user redirected to login page	Logout successful, session cleared	Pass

8. Screenshot Reference Table

Screenshot Name	Description
TC01_RegisterSuccess.png	Successful registration with valid inputs
TC02_InvalidEmail.png	Invalid email format error message
TC03_LoginSuccess.png	Login and dashboard access
TC04_InvalidLogin.png	Error for incorrect login credentials
TC05_ProtectedDashboard.png	Dashboard access denied without login
TC06_LogoutSuccess.png	Logout and session destroy confirmation
BUG01_BlankPassword.png	Bug reproduction: login allowed without password

9. Bug Report

Bug ID	Title	Steps to Reproduce	Expected Result	Actual Result	Priority	Status
BUG01	Login allows blank password	Leave password field empty, click login button	Show validation message: Required	Redirects to dashboard (bypassed)	High	Open

Impact: This bug poses a security threat. Users can bypass password input and access the dashboard.

Suggested Fix: Enforce server-side validation for non-empty password field before processing login.

10. Test Execution Summary

Metric	Count
Total Test Cases Designed	6
Total Test Cases Executed	6
Test Cases Passed	6
Test Cases Failed	0
Major Bugs Identified	1
Minor Bugs Identified	0

11. Learning Outcomes

- Understood how to break down application modules into testable units.
- Gained practical experience in test case design using structured templates.
- Learned how to document actual test execution results.
- Identified and documented a real bug, practicing defect reporting.
- Strengthened ability to analyze application behavior through manual testing.

12. Conclusion

All major functional modules of the login and registration system were verified through well-structured test cases. The system behaved as expected for positive and negative test cases. However, a critical security flaw was found where login was permitted without password validation highlighting the importance of input validation and secure coding practices.

13. Attachments for Submission

- Test Case Sheet (Excel/PDF format)
- Execution Screenshots (6 test cases + 1 bug)
- Bug Report Document (Optional, if bugs found)