Black-Box Testing Using BVA & EP (Login Module)

Module Tested

Login Page – Demo Web Application

Tested URL: https://practice.expandtesting.com/login

Testing Technique
Black-Box Testing

1. Boundary Value Analysis (BVA) Test Cases

TC ID	Test Scenario	Test Data	Expected Result
BVA-01	Username below assumed minimum length	2 characters	Login should fail and validation message should be displayed
BVA-02	Username at assumed minimum length	3 characters	System should allow login validation
BVA-03	Username above assumed minimum length	4 characters	System should allow login validation
BVA-04	Password below assumed minimum length	7 characters	Login should fail and error message should be displayed
BVA-05	Password at assumed minimum length	8 characters	System should allow login validation
BVA-06	Password above assumed minimum length	9 characters	System should allow login validation

2. Equivalence Partitioning (EP) Test Cases

TC ID	Test Scenario	Test Data	Expected Result
EP-01	Login with valid credentials	Valid username and valid password	User should be logged in successfully
EP-02	Login with invalid password	Valid username and invalid password	Error message should be displayed
EP-03	Login with invalid username	Invalid username and valid password	Error message should be displayed
EP-04	Login with empty field	Username and password left blank	Validation message should be displayed

Cross-Browser (Compatibility) Testing

The objective of this testing is to verify that the login functionality behaves consistently across different web browsers and provides a uniform user experience.

Browsers Tested

- Google Chrome (Latest Version)

- Mozilla Firefox (Latest Version)

- Microsoft Edge (Latest Version)

Test Summary

The login page was tested on multiple browsers to check page loading, field visibility, login functionality, and UI behavior.

Cross-Browser Test Results

Browser	Version	Result	Observation
Google Chrome	Lastet	pass	Login page loaded correctly , password visibility toggle not displayed
Mozilla Firefox	Latest	pass	Login page functioned correctly , UI behavior similar to Chrome.
Microsoft Edge	Latest	pass	Password visibility toggle displayed , page behavior consistent

Bug Report – Login System

Field	Details
Bug ID	BUG_006
Description	Incorrect error message displayed , when invalid username and valid password are entered
Severity	Medium
Priority	Medium
Steps to Reproduce	1. Open login page 2. Enter invalid username 3. Enter valid password 4. Click login
Expected Result	Error message should clearly indicate that the username is invalid
Actual Result	An inconsistent or error message is displayed
Status	Open