

Website Testing Using Katalon Studio

Deadline

19/12/2025, 5:00 PM

Team Structure

The project can be conducted either by a team of four or five members.

Objective

- To thoroughly test all features and functions of a website using Katalon Studio, ensuring quality, performance, and usability. The project will also involve creating detailed documentation for each phase of the testing process.

Scope

This project aims to perform automated testing on all features of a website using Katalon.

Website Features to Test

The website includes the following features and functions. All features must be tested comprehensively:

User Authentication:

- Login functionality
- Signup functionality
- Password recovery/reset

Payment System:

- Online payment with various methods (credit card, PayPal, etc.)
- Failed transaction handling
- Refund processing

User Profile:

- View profile details
- Edit/update personal information
- Change password

Search Functionality:

- Search with valid keywords
- Search with invalid keywords
- Filtered search results

Checkout Process:

- Adding/removing items in the cart
- Order summary validation
- Order confirmation and receipt generation

Chat Feature:

- Real-time chat functionality
- Sending and receiving messages
- Chat notifications

Content Management:

- **Uploading and managing user-generated content**
- **Image and file validation**

Social Features:

- **Friend requests and connections**
- **Liking and commenting on posts**

Notifications:

- **Email notifications for account-related activities**
- **Real-time alerts for messages, updates, etc.**

Website Security (Bonus)

- **Session timeout**
- **Input validation to prevent SQL injection/XSS**
- **CAPTCHA verification**

Performance Testing: (Bonus)

- **Load time for pages**
- **Response time for high traffic**

Non-Functional Testing Using JMeter (Bonus)

Performance

- **Description:** The testing process should not significantly impact the website's performance.
- **Acceptance Criteria:**
 - The test scripts should execute within a reasonable time frame.
 - The testing process should not overload the server.

Reliability

- **Description:** The testing results should be reliable and consistent.
- **Acceptance Criteria:**
 - Test scripts should be robust enough to handle variations in website elements.
 - Test results should be reproducible across multiple executions.

Tools and Technologies

Katalon Studio: Integrated development environment for generating and executing Selenium tests.

Deliverables

- **Test Strategy** :^[L]_[SEP]

High-level strategy including testing objectives, scope, tools, and environment.

- **Test**

Plan:^[L]_[SEP]

Detailed testing roadmap, schedule, resources, and criteria for success.

- **Test Case** :^[L]_[SEP]

Steps, expected results, and actual results for test cases.

- **Defect Triage** :^[L]_[SEP]

A matrix to prioritize and track defects during testing.

- **Sample Bug Report** :^[L]_[SEP]

Document format for logging and reporting defects.

- **Software Release Notes** :^[L]_[SEP]

Summary of changes, testing outcomes, and known issues.

- **Status Report** :^[L]_[SEP]

Weekly status updates for project tracking.

- **Test Scenarios** :^[L]_[SEP]

High-level scenarios covering each functional and non-functional requirement.

- **Test Summary Report** :^[L]_[SEP]

Summary of the test execution results.

- **Test Scripts** : Katalon scripts for testing other website features.

- **Test Execution Reports:**
 - Detailed reports generated after each test execution.
 - Reports to include test results, pass/fail status, and any detected issues.
- **Documentation:**
 - Detailed documentation outlining test scenarios, scripts, and configurations.
 - User manuals for executing tests using Katalon.

Assumptions and Constraints

- **Assumption:** The website under test is accessible and functional.
- **Constraint:** Limited testing resources may impact the depth and coverage of testing

Test Cases:

At least 20 detailed test cases will be created. Here are examples for each feature:

User Authentication

- Validate successful login with correct credentials.
- Verify error messages for incorrect credentials.
- Test password recovery with a valid email.

Payment System

- Test successful payment with a valid credit card.
- Validate failed payment due to insufficient funds.
- Check system behavior for refund processing.

User Profile

- Test updating the profile picture.
- Verify functionality to edit and save profile details.

Search Functionality

- Test search results with valid and popular keywords.
- Validate no results are displayed for nonsensical keywords.

Checkout Process

- Verify adding and removing items from the cart.
- Ensure the order summary matches the selected items.

Chat Feature

- Test sending and receiving messages in real-time.
- Validate notifications for new messages.
- **Notifications**
- Test email notification for a successful signup.

References

Katalon Documentation: [<https://docs.katalon.com>]