

Web Application Testing and Automation Assessment

Project Name: Automation In Testing

WebUrl: <https://automationintesting.online>

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TEST PLAN

1. Scope and Objectives:

Test the contact form and booking form functionalities.
Ensuring accurate form submission, validation, and error handling.
Verifying the corresponding APIs are correctly called.

2. Test Strategy:

Using the BDD approach with Cypress and the Cucumber for end-to-end testing.
Automate both frontend UI Elements interactions and API calls.
Focus on positive and negative scenarios to cover different cases.
Implementing data-driven testing to cover various input combinations.
Leverage Cypress built-in features for assertions and verifications.

3. Test Scenarios:

Test case scenarios are outlined in the Gherkin feature files.
Prioritizing critical scenarios such as valid form submissions and error handling.
Including edge cases like invalid email formats and missing fields.
Covering API response validation against expected data.

4. Test Environment:

Using the "https://automationintesting.online" website for testing.
Does the exploratory testing to ensure that the website is in a stable state before running tests.

5. Test Data:

Keep require test data inside fixture directory
Prepare test data for different scenarios, including valid and invalid inputs.

6. Test Execution:

Run the automated tests using Cypress and cypress-cucumber-preprocessor.
Capture screenshots or videos of test execution for documentation.

7. Defect Reporting:

Recorded defects identified during testing.
Using Github Actions and Cypress dashboard for detail reports
Will include steps to reproduce and screenshots/videos as evidence if necessary.

8. Test Reporting:

Compile test results and defects into a detailed report by using Allure Reporter for clean, interactive and self-explained test reports for detailed logs for better debugging.
Included information about the executed scenarios, their status, and any issues found.

9. Documentation:

This document includes all the necessary information and approach used to test this web application such as Test Plan & Test Strategy, Project Workflow and Traceability Matrix.
Furthermore, a readme.MD file is generated inside the project root directory which describes all the prerequisites and steps to run this project.

Workflow 1 (Contact Form)

Test Case 1: Submitting a valid contact form

1. Navigate to the contact form page on the homepage.
2. Enter valid name, email, phone, subject, and description.
3. Click on the "Submit" button.
4. Verify that a success message is displayed.

Test Case 2: Submitting a contact form with missing fields

1. Navigate to the contact form page on the homepage.
2. Leave one or more required fields empty.
3. Click on the "Submit" button.
4. Verify that error messages are displayed for the missing fields.

Test Case 3: Submitting a contact form with invalid email

1. Navigate to the contact form page on the homepage.
2. Enter an invalid email address format.
3. Click on the "Submit" button.
4. Verify that an error message is displayed for the invalid email.

Workflow 2 (Booking Form)

Test Case 4: Booking a room with valid details

1. Navigate to the booking form on the homepage.
2. Enter valid first name, last name, email, phone, check-in date.
3. Click on the "Submit" button.
4. Verify that a success message is displayed.

Test Case 5: Booking a room without providing check-in and check-out dates

1. Navigate to the booking form on the homepage.
2. Enter valid first name, last name, email and phone.
3. Leave the check-in date unchecked or empty.
4. Click on the "Submit" button.
5. Verify that an error message is displayed for missing dates or null fields.

Test Case 6: Booking a room with invalid email

1. Navigate to the booking form on the homepage.
2. Enter valid first name, last name, an invalid email address, phone and check-in date.
3. Click on the "Submit" button.
4. Verify that an error message is displayed for the invalid email.

Workflow 3 (API Testing)

Test Case 7: Verify contact form API response for valid data

1. Submit the contact form from the UI with valid data.
2. Intercept then verify API POST request response.
3. Validate the API response for correctness, including message ID and data consistency.

Test Case 8: Verify booking form API response for valid data

1. Submit the booking form from the UI with valid data.
2. Intercept then verify API POST request response.
3. Validate the API response status as "success."

Test Case 9: Verify contact form API response for invalid data

- 1. Submit the contact form from the UI with invalid data.
- 2. Intercept then verify API POST request response.
- 3. Validate the API response for proper error handling and messages.

Test Case 10: Verify booking form API response for invalid data

- 1. Submit the booking form from the UI with invalid data.
- 2. Intercept then verify API POST request response.
- 3. Validate the API response for proper error handling and messages.

Traceability Matrix For Test Case

TEST CASE	SCENARIO	WORKFLOW	AUTOMATED
Test Case 1	Submitting a valid contact form	Contact Form	Yes
Test Case 2	Submitting a contact form with missing fields	Contact Form	Yes
Test Case 3	Submitting a contact form with invalid email	Contact Form	Yes
Test Case 4	Booking a room with valid details	Booking Form	Yes
Test Case 5	Booking a room without providing dates	Booking Form	Yes
Test Case 6	Booking a room with invalid email	Booking Form	Yes
Test Case 7	Verify contact_form API response for valid data	API Testing	Yes
Test Case 8	Verify booking_form API response for valid data	API Testing	Yes
Test Case 9	Verify contact_form API response for invalid data	API Testing	Yes
Test Case 10	Verify booking_form API response for invalid data	API Testing	Yes