

Testing RESTful API Endpoints Assessment

Project Name: Json Placeholder

WebUrl: <https://jsonplaceholder.typicode.com>

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TEST PLAN

Objective:

Verify the functionality and correctness of the API endpoints provided by <https://jsonplaceholder.typicode.com>.

Tools Used:

Playwright

Test Strategy:

Automated API testing to validate the responses and behavior of each endpoint.

TEST CASES

Test Cases:Test Case: Get List of All Posts (GET /posts)

Description:

Verify that the API returns a list of all posts.

Steps:

- Send a GET request to /posts endpoint.

Expected Results:

1. Response status code should be 200 (OK).
2. Validate the response structure against the expected format.
3. Validate that at least one post entry exists in the response.

Test Case: Get a Specific Post (GET /posts/id)

Description:

Verify that the API returns the correct post when requesting a specific post by ID.

Steps:

- Send a GET request to /posts/id endpoint.

Expected Results:

1. Response status code should be 200 (OK).
2. Validate the response structure against the expected format.
3. Validate that the post ID and content match the expected data.

Test Case: Create a New Post (POST /posts)

Description:

Verify that a new post can be successfully created using the API.

Steps:

- Send a POST request to /posts endpoint with the provided payload.

Expected Results:

1. Response status code should be 201 (Created).
2. Validate the response structure against the expected format.
3. Validate that the returned data matches the posted payload.

Test Case: Update a Post (PUT /posts/id)

Description:

Verify that a specific post can be successfully updated using the API.

Steps:

- Send a PUT request to /posts/1 endpoint with the provided payload.

Expected Results:

1. Response status code should be 200 (OK).
2. Validate the response structure against the expected format.
3. Validate that the returned data matches the updated payload.

Test Case: Delete a Post (DELETE /posts/id)

Description:

Verify that a specific post can be successfully deleted using the API.

Steps:

- Send a DELETE request to /posts/id endpoint.

Expected Results:

- Response status code should be 200 (OK) or 204 (No Content).
- Validate that the post is no longer accessible by trying to fetch it using a GET request.

Test Execution:

- Execute the test cases in the defined sequence.
- Capture screenshots or logs for any failed tests.

Test Reporting:

- Record the execution results including passed and failed tests.
- Document any issues or defects found during testing.
- Generate a comprehensive test report.

Note: Customize the test environment, execution procedures, and reporting methods according to your specific project's requirements.

Traceability Matrix For Test Case

TEST CASE ID	SCENARIO	ENDPOINT	AUTOMATED
TC-API-01	Verify GET /posts returns list of all posts	/posts	Yes
TC-API-02	Verify GET /posts/{id} returns a specific post	/posts/{id}	Yes
TC-API-03	Verify POST /posts creates a new post	/posts	Yes
TC-API-04	Verify PUT /posts/{id} updates a post	/posts/{id}	Yes
TC-API-05	Verify DELETE /posts/{id} deletes a post	/posts/{id}	Yes