

Pet Swagger Test Automation Project

Test Plan / Test Documentation

1. What is being tested

- The Pet Store API (<https://petstore.swagger.io/>) endpoints for functionality and correctness.
- Basic UI tests of the Pet Store web application.
- Integration between API and UI to ensure expected system behavior.

2. Test coverage areas

- API Tests:

- CRUD operations (Create, Read, Update, Delete) for Pet, User, and Store endpoints.
- Verification of response status codes, data accuracy, and error handling.

- UI Tests:

- Core user scenarios on the Pet Store web interface, such as login, product listing, and product detail view.
- Presence and functionality of UI elements.

- Integration Tests:

- Data consistency and flow between the UI and API layers.

3. Tools used and why

- Jest: For running and reporting test cases; a widely used JavaScript testing framework.
- Cypress: Chosen for UI end-to-end testing due to its modern approach and ease of use.

- Supertest: To send HTTP requests for API testing.
- Chai: Assertion library used in API tests for validating expected results.
- Node.js & npm: The runtime and package manager for running tests and managing dependencies.
- Swagger/OpenAPI: Used as the reference API documentation to prepare test scenarios.

4. How to run the tests

- Install project dependencies:

```
npm install
```

- To run UI tests (Cypress):

- Open Cypress Test Runner:

```
npx cypress open
```

- Or run tests in headless mode:

```
npx cypress run
```

- To run API and Jest tests:

```
npm test
```

- Notes:

- Jest needs proper configuration to support ES6 import/export syntax (e.g., via Babel).

- Make sure chai is installed:

```
npm install chai --save-dev
```

5. Assumptions and limitations

- The project uses ES6+ syntax, so Jest must be configured with Babel or equivalent to handle it.
- Without proper Jest configuration, you may encounter errors like "Cannot use import statement outside a" or "SyntaxError: Unexpected token".
- Some dependencies like chai need to be installed in the project.
- Node.js and npm should be installed on the local machine or CI environment to run the tests.
- The API server (<https://petstore.swagger.io>) must be accessible and operational during test execution.
- The test scope is limited to functionality and integration; performance, security, and load tests are not included.