

# Corti QA Engineering Test: Solution

Approach: The solution showcases testing of the /pet API endpoints for

POST /pet

POST /pet{petId}/uploadImage

DELETE /pet/{petId}

TODO: add more

Test automation framework used: Playwright, <https://playwright.dev/>

General techniques used:

- Testing valid, non-valid, and unsupported ID values and file types
- Test parameterisation:
  - Running the same test multiple times with different inputs
- Testing flows:
  - Implemented a happy path flow: create pet, upload image to pet, update pet info/data, delete pet
  - Things to look for: data propagation between tests, running tests in order.
  - Implementation-wise, I use the *describe* interface from Playwright using *test.step*

Bonus:

- CI/CD
  - The current implementation is able to be set & run via a CI/CD tool, eg. TeamCity. I foresee the following steps in the setup:
    1. Framework setup/installation: npm install
    2. Running test: npx playwright test
    3. We can have a bunch of other optional steps depending of the setup:
      1. We might want to setup/reset a DB before running tests
      2. We might need to spin up an environment
      3. Etc.
- Other configurations:
  - Automated triggers after a successful deployment to a test environment
  - Parameters for the test job: test environment name, etc.

- **Test repeatability**
  - As the good practices of test automation suggest, the tests should be re-runnable, independent from each other, focused
  - In order to have re-runnable tests it is important to have a mechanism that handles the test data.
  - Example of such mechanisms:
    - Database reset to a known starting state (with pre-populated data in it)
    - On-the-fly test data creation before each test or test suite.
- **Reporting:**
  - Playwright default HTML reporter
  - Slack or MS Teams per team channel notifications
  - In CI/CD, eg. TeamCity, the report can be saved in the Artifacts
  - 3rd-party reporters for Playwright, eg. Monocart, Tesults, ReportPortal, etc.