**README**

**Project Overview**

This project automates the testing of an upload feature for a web application using Playwright and Python. It includes test cases for validating valid and invalid file uploads, handling edge cases, and ensuring proper error messages are displayed.

**Setup Instructions**

**Prerequisites:**

1. Python 3.8 or higher installed.
2. pip (Python package installer) installed.
3. Node.js installed (required for Playwright).

**Steps:**

1. **Clone the repository:**
2. git clone <repository-url>
3. cd <repository-folder>
4. **Create a virtual environment:**
5. python -m venv .venv
6. source .venv/bin/activate # On Windows: .venv\Scripts\activate
7. **Install dependencies:**
8. pip install -r requirements.txt
9. **Install Playwright browsers:**
10. playwright install
11. **Add the data directory:** Ensure that the data folder exists with the following CSV files:
    * valid\_products.csv
    * invalid\_products.csv
    * nameless\_products.csv
    * empty.csv

**Test Execution Instructions**

**Running Tests:**

1. Activate the virtual environment if not already activated:
2. source .venv/bin/activate # On Windows: .venv\Scripts\activate
3. Run all tests:
4. pytest
5. Run a specific test file:
6. pytest tests/test\_upload.py
7. Generate an HTML test report:
8. pytest --html=reports/test\_report.html --self-contained-html

**Debugging:**

* To run tests with visible browser interactions:
* pytest -s --headed

**Project Structure**

project-root/

|-- pages/

| |-- base\_page.py # Test cases for upload functionality

| |-- upload\_page.py # Page Object Model for the upload page

|-- tests/

| |-- test\_upload.py # Test cases for upload functionality

|

|-- data/

| |-- valid\_products.csv # Valid test data

| |-- invalid\_products.csv # Invalid test data

| |-- nameless\_products.csv # Test data missing product names

| |-- empty.csv # Empty CSV file for testing

|

|-- reports/ # Directory for test reports

|

|-- requirements.txt # Python dependencies

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|-- README.md # Documentation

**Assumptions and Limitations**

**Assumptions:**

1. The server is running locally on http://localhost:8000.
2. The upload page is accessible without authentication.
3. The CSV files are structured according to the application's requirements.

**Limitations:**

1. Tests are designed for a local environment and may require adjustments for deployment in other environments.
2. Error messages are validated as exact matches; minor changes to text may require updates to the test cases.
3. The project currently supports only Chromium-based browsers.

For additional questions or support, please contact [Your Contact Info].