

Playwright with Pytest

- Install & set up Playwright with Pytest
- Write sync Playwright tests
- Run tests across browsers
- Execute specific tests
- Run tests in parallel

Setup Environment

Prerequisites

- Install **Python**
- Install **Pytest**

Install Playwright with Pytest Plugin

```
pip install pytest-playwright
```

Install Browsers for Playwright

```
playwright install
```

Update Playwright to Latest Version

```
pip install pytest-playwright playwright -U
```

Sync vs Async Support

Playwright provides **both synchronous and asynchronous APIs** in Python.

- Many Playwright operations (like `page.goto()`, `page.title()`, `page.url()`) are **asynchronous** because they interact with the browser.

Keywords in async

- **async** → Declares a function that supports `await`.
- **await** → Waits for an asynchronous operation to finish before moving to the next step.

👉 **Note:** In Python Playwright, **you don't always need async/await because** it provides **sync API** (`playwright.sync_api`).

Writing Tests with Playwright and Pytest

```
from playwright.sync_api import Page, expect
import re

def test_verify_page_url(page: Page):
    page.goto("http://www.automationpractice.pl/index.php")
    expect(page).to_have_url("http://www.automationpractice.pl/index.php")

def test_verify_page_title(page: Page):
    page.goto("http://www.automationpractice.pl/index.php")
    expect(page).to_have_title("My Shop")
```

Running Tests (CLI Commands)

Run all tests (default → headless mode):

```
pytest test_playwright.py -s -v
```

Run tests in headed mode:

```
pytest test_playwright.py -s -v --headed
```

Run tests on different browsers:

```
pytest test_playwright.py -s -v --headed --browser firefox
```

```
pytest test_playwright.py -s -v --headed --browser chromium
```

```
pytest test_playwright.py -s -v --headed --browser chromium --browser firefox
```

Run a specific test:

```
pytest test_playwright.py::test_verify_page_title -s -v
```

Running Tests in Parallel

(Requires **pytest-xdist**)

```
pytest test_playwright.py -s -v --headed --browser chromium -n=2
```

```
pytest test_playwright.py -s -v --headed --browser chromium -n 2
```

```
pytest test_playwright.py -s -v --headed --browser chromium --numprocesses=2
```

```
pytest test_playwright.py -s -v --headed --browser chromium --numprocesses 2
```