1. To execut a particular test

npx playwright test -g "has title"

2. To Rerun a failed test

npx playwright test --last-failed

3. To run the project automation on chromium and enable trace on as well:

npx playwright test --project chromium --trace on

4. Playwright's defineConfig

To set up how my tests should run. This config gives me flexibility across browsers, environment control, retries, and even geolocation emulation.

5. General Settings:

testDir: Test files are located in the ./tests directory.

fullyParallel: Enables full parallelism across test files.

forbidOnly: Ensures **.only is not left** accidentally in source (enabled on CI).

retries: Retries failed tests up to 2 times on CI, none locally.

workers: Runs with a single worker on CI to avoid parallel execution issues.

reporter: Uses the 'html' reporter for test results.

6. use block (Shared Settings for All Projects):

```
use: {
    /* Base URL to use in actions like `await page.goto('/')`. */
    // baseURL: 'http://127.0.0.1:3000',
    baseURL: 'https://playwright.dev/',
    /* Collect trace when retrying the failed test. See
    https://playwright.dev/docs/trace-viewer */
    trace: 'on-first-retry',
    screenshot: 'only-on-failure',
    video: 'on-first-retry'
```

```
acceptDownloads: false,
extraHTTPHeaders: {
  'X-My-Header': 'value',
},
httpCredentials: {
 username: 'user',
 password: 'pass'
},
ignoreHTTPSErrors: true,
offline: true,
proxy: {
 server: '',
 bypass: 'localhost'
// Emulation options
colorScheme: 'dark',
geolocation: { longitude: 12.343535, latitude: 45.56575 },
locale: 'en-GB',
permissions: ['geolocation'],
timezoneId: '',
viewport: { width: 1280, height: 720 }
```

7. Browser Projects

```
name: 'webkit',
    use: { ...devices['Desktop Safari'] },
},

/* Test against mobile viewports. */
{
    name: 'Mobile Chrome',
    use: { ...devices['Pixel 5'] },
},

{
    name: 'Mobile Safari',
    use: { ...devices['iPhone 12'] },
},

/* Test against branded browsers. */
{
    name: 'Microsoft Edge',
    use: { ...devices['Desktop Edge'], channel: 'msedge' },
},

{
    name: 'Google Chrome',
    use: { ...devices['Desktop Chrome'], channel: 'chrome' },
},
```

8. Dev Server (Commented-out):

Option to run a dev server (npm run start) before running tests.

Can be reused locally but starts fresh on CI.

```
/* Run your local dev server before starting the tests */
webServer: {
   command: 'npm run start',
   url: 'http://127.0.0.1:3000',
   reuseExistingServer: !process.env.CI,
   },
```

9. Special Test States:

- **test.only:** Focuses the test runner only on this test (focus on this test case).
- test.skip: Skips the skipped test case.
- Conditional skip:
 - Skips a test for chromium only using test.skip(browserName === 'chromium').

test.beforeAll

> Pre-test setup logic before all tests run.

Handles:

- Waiting for and interacting with a popup (waitForEvent('popup')).
- > Inside the popup, finds a close button and clicks it.
- Listens for browser dialogs like alert(), confirm(), prompt() and accepts them automatically.