

# Playwright TypeScript

## User Events & Actions — Student Checklist + Examples

Trainer handout • Updated January 08, 2026 • Instructor: MD Zaman

**How to use this handout:** Keep this as your daily reference. Each item is something you should be able to demonstrate in code during labs and the capstone.

### Master Checklist

<b>Navigation &amp; Page Lifecycle</b>	<ul style="list-style-type: none"><li>■ Open a page and navigate with waiting strategy</li><li>■ Back / forward / reload</li><li>■ Popups (new tab/window) and multiple pages</li><li>■ Iframes (frameLocator)</li></ul>
<b>Locators &amp; User Interactions</b>	<ul style="list-style-type: none"><li>■ Locate by role/label/testid/text</li><li>■ Click / dblclick / right-click; hover</li><li>■ Fill / clear; type with delay</li><li>■ Keyboard keys (Enter/Tab/Ctrl/Cmd shortcuts)</li><li>■ Select dropdown; check/uncheck; radio</li><li>■ Upload and download files</li><li>■ Drag and drop; scroll into view</li></ul>
<b>Assertions &amp; Validation</b>	<ul style="list-style-type: none"><li>■ Visibility/hidden; enabled/disabled; editable</li><li>■ Text; value; attribute; URL; title</li><li>■ Soft assertions (when appropriate)</li></ul>
<b>Waiting &amp; Stability</b>	<ul style="list-style-type: none"><li>■ Use auto-wait (locators + expect)</li><li>■ Wait for URL/navigation; wait for response</li><li>■ Avoid hard sleeps (waitForTimeout)</li></ul>
<b>Dialogs, Modals, Toasts</b>	<ul style="list-style-type: none"><li>■ Alert/confirm/prompt dialogs</li><li>■ Modal confirm/cancel flows</li><li>■ Toast/status message assertions</li></ul>
<b>Auth &amp; Session</b>	<ul style="list-style-type: none"><li>■ Login once; reuse storageState</li><li>■ Session expiry and logout validation</li></ul>
<b>Network &amp; API</b>	<ul style="list-style-type: none"><li>■ APIRequestContext for setup/validation</li><li>■ API setup -&gt; UI verify</li><li>■ Route mocking/interception for controlled scenarios</li></ul>
<b>Structure &amp; Evidence</b>	<ul style="list-style-type: none"><li>■ test.describe + hooks + tags (smoke/regression)</li><li>■ Screenshots/video/trace on failure</li><li>■ HTML (and optionally JUnit) reporting</li></ul>

# Definitions + One Example Each

These are the core actions you'll use repeatedly. In labs, you should be able to explain what each does and why it's used.

## Navigate and wait

Go to a URL and wait for the correct ready state.

```
await page.goto("https://the-internet.herokuapp.com/", { waitUntil: "domcontentloaded" });
```

## Accessible locator (recommended)

Find elements using role/label/testid for stability.

```
await page.getByRole("link", { name: "Form Authentication" }).click();
```

## Fill + click + assert

Perform a user input action and verify the outcome.

```
await page.getLabel("Username").fill("tomsmith");
await page.getLabel("Password").fill("SuperSecretPassword!");
await page.getRole("button", { name: "Login" }).click();
await expect(page.locator("#flash")).toContainText("You logged into a secure area!");
```

## Popup / new window

Capture a new page opened by a user action.

```
const [popup] = await Promise.all([
  page.context().waitForEvent("page"),
  page.getByRole("link", { name: "Click Here" }).click(),
]);
await popup.waitForLoadState();
```

## Iframes

Interact with content inside an iframe using frameLocator.

```
await page.frameLocator("#mce_0_ifr")
  .locator("body")
  .fill("Hello from Playwright!");
```

## File upload

Upload a file via input element.

```
await page.setInputFiles('input[type="file"]', "tests/fixtures/sample.txt");
```

## Download

Wait for and validate a download triggered by user action.

```
const download = await Promise.all([
  page.waitForEvent("download"),
  page.getByRole("link", { name: "some-file.txt" }).click(),
```

```
]).then(([d]) => d);
expect(await download.path()).toBeTruthy();
```

## Dialog

Accept or dismiss browser dialogs (alert/confirm/prompt).

```
page.once("dialog", async (d) => await d.accept());
await page.getByRole("button", { name: "Click for JS Alert" }).click();
```

## Wait for response

Synchronize with backend by waiting for a specific response.

```
const res = await page.waitForResponse(r => r.url().includes("/posts/1") && r.status() === 200);
```

## API setup

Create/prepare data via APIRequestContext (fast and reliable).

```
const res = await request.get("https://jsonplaceholder.typicode.com/posts/1");
expect(res.ok()).toBeTruthy();
```

## Network mocking

Stub a response to make the UI deterministic.

```
await page.route("**/api/profile", route => route.fulfill({
  status: 200,
  contentType: "application/json",
  body: JSON.stringify({ name: "Mock User" }),
});
```

## Evidence on failure (config)

Capture screenshots/videos/traces to debug failures quickly.

```
// playwright.config.ts
use: {
  screenshot: "only-on-failure",
  trace: "on-first-retry",
  video: "retain-on-failure",
}
```

# Capstone: End-to-End Practice Suite

During the course, we'll build a capstone suite that exercises the full set of user actions. The sample pack uses a stable public demo site for UI practice plus a public API for request validation.

Item	What students will do
UI Demo Site (Practice)	<a href="https://the-internet.herokuapp.com/">https://the-internet.herokuapp.com/</a> (login, checkboxes, dropdown, frames, alerts, uploads, downloads, drag-drop, windows)
API Demo (Practice)	<a href="https://jsonplaceholder.typicode.com/">https://jsonplaceholder.typicode.com/</a> (APIRequestContext examples)
Suite Design	Multiple focused tests (UI auth, forms, windows/frames, file ops, alerts) + an API-only test + optional mocking demo.
Success Criteria	All tests pass locally; reports generated; failures produce evidence (trace/screenshot).

**Trainer note:** Keep each test small and reliable. Prefer role/label/testid locators, avoid hard waits, and capture traces on first retry.