ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

Playwright Workshop

3 - Advanced

Agenda

- Page objects
- Test fixtures
- Network stubbing
- Session storage

Page Objects

- Contains logic for actions and selectors
- Encapsulates (proportionate) selectors
- Exposes actions
- Heavily debated in other E2E frameworks
- Patterns after Christian Dangl:
  - Page Object < Actions < Repositories < Scenarios
  - https://www.youtube.com/watch?v=mNcz2nEn1co

Page Object - holidays

```
import { Page } from "@playwright/test";

export class HolidaysPage {
  constructor(private page: Page) {}

  async getBrochureFor(holidayName: string) {
    await this.page
      .locator(`data-testid=holiday-card`, {
        has: this.page.locator("mat-card-title", { hasText: "Vienna" }),
      })
      .locator("data-testid=btn-brochure")
      .click();
  }
}
```

Page Object - Usage

```
import { test } from "@playwright/test";
import { HolidaysPage } from "./page-objects/holidays-page";

test.describe("Basics", () => {
  test("test selectors", async ({ page }) => {
    await page.goto("");
    await page.click("data-testid=btn-holidays");
    const holidayPage = new HolidaysPage(page);
    await holidayPage.getBrochureFor("Vienna");

    await page.locator("data-testid=address").waitFor();
  });
});
```

Test fixtures

- Adds the possibility to "inject" additional elements into a test
- Can be combined
- Can be overwritten
- Are activated lazily
- Common use case for page objects

Test fixtures for holidays

```
import { HolidaysPage } from "../page-objects/holidays-page";

export interface HolidaysFixtures {
  holidaysPage: HolidaysPage;
}

export const holidaysFixtures = {
  holidaysPage: async ({ page }, use) => {
    const holidaysPage = new HolidaysPage(page);
    await use(holidaysPage);
  },
};
```

Test fixtures in action

```
import { test as base } from "@playwright/test";
import {
  holidaysFixtures,
  HolidaysFixtures,
} from "./fixtures/holidays-fixture";

const test = base.extend<HolidaysFixtures>({holidaysFixture});

test.describe("Basics", () => {
  test("test selectors", async ({ page, holidaysPage }) => {
    await page.goto("");
    await page.locator("data-testid=btn-holidays").click();
    await holidaysPage.getBrochureFor("Vienna");

    page.locator("data-testid=address").waitFor();
  });
});
```

Network stubbing

- Intercept the network
- Verify requests
- Abort them
- Modify them
- Response: main use case

Use case: logging

- No impact on the application at all
- `page.on("request", (req) => console.log(req.url()));`

Use case: stubbing

```
page.route("https://api.eternal-holidays.net/holidays", (route) =>
 route.fulfill({
  status: 200,
  json: [
   {
    id: 1,
    title: "Cambodia",
    teaser: "Discover old temples and the old Khmer Empire",
    imageUrl:
     "https://eternal-app.s3.eu-central-1.amazonaws.com/assets/AngkorWatSmall.jpg",
    description:
     "Cambodia is known for Angkor Wat which is the most visited attraction in whole Asia. Started out as an Hindu temple, it was gradually transformed to a Buddhist one. Beware, it can be very humid there.",
   },
  ],
 })
);
```

Caching authentication

1. Global script that runs once at the start
2. Signs in
3. Persists localStorage, cookies in a file
4. Activate session via `test.use({storagePath: [filename]})`