



ANGULAR  
**ARCHITECTS**  
INSIDE KNOWLEDGE

# Playwright Workshop



## 3 - Advanced

# Agenda

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



ANGULAR  
**ARCHITECTS**  
INSIDE KNOWLEDGE

# 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: holidayName }),
      })
      .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: Waiting for a certain request

```
test('holidays should be called', async ({ page }) => {  
  const holidaysRequest = page.waitForResponse((response) => {  
    return response.url() === 'https://api.eternal-holidays.net/holiday';  
  });  
  
  await page.goto('');  
  
  await page.getByTestId('btn-holidays').click();  
  
  await expect(page.getByTestId('holiday-card')).toHaveCount(9);  
  
  await holidaysRequest;  
});
```



# Use case: Requesting from test itself

```
test('should count the holidays and verify', async ({ page, request }) => {  
  const response = await request.get(  
    'https://api.eternal-holidays.net/holiday'  
  );  
  expect(response.ok()).toBeTruthy();  
  const holidays = (await response.json()) as unknown[];  
  const holidayCount = holidays.length;  
  
  await page.goto('');  
  await page.getByRole('link', { name: 'Holidays', exact: true }).click();  
  await expect(page.getByTestId('holiday-card')).toHaveCount(holidayCount);  
});
```



# 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 one time at the start
2. Signs in
3. Persists localStorage, cookies in a file
4. Activate session via `test.use({storagePath: [filename]})`

