



# Basic Rules in E2E Testing

- Let your test fail
- Use resilient selectors
  - o data-\*
  - text
  - o role
- Multiple Matchers are allowed
- Stay with locator, not do direct fetching



# Playwright's powerhorse: page.locator

- Returns a promise of a DOM query
- Chainable for actions
- Argument for assertions (expect)
- Different selectors (not just CSS)
  - Text selectors
  - Data-testid
  - Location-based
  - XPath
  - React/Vue experimental
- Nestable
- Shadow DOM "piercing"



### Text selectors

```
await page.locator("text=Welcome to Eternal").waitFor(); // partial match
await page.locator("text='Welcome to Eternal'").waitFor(); // exact match
await page.locator("'Welcome to Eternal'").waitFor(); // exact match
await page.locator("*", { hasText: "Welcome to Eternal" }).waitFor(); // fails on strict mode
await page.locator("h2", { hasText: "Welcome to Eternal" }).waitFor(); // right approach
await page.locator(":has-text('Welcome to Eternal')").waitFor(); //
```



### Selectors via data-testid

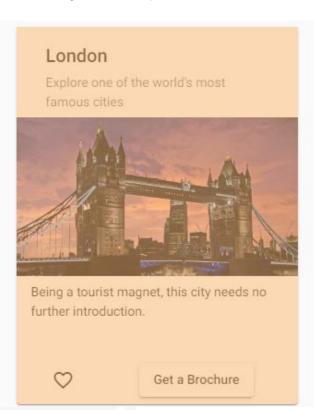
```
await page.locator("data-testid=greeting").waitFor();
await page.locator("[data-testid=greeting]").waitFor();
await page.locator("css=[data-testid=greeting]").waitFor();
```

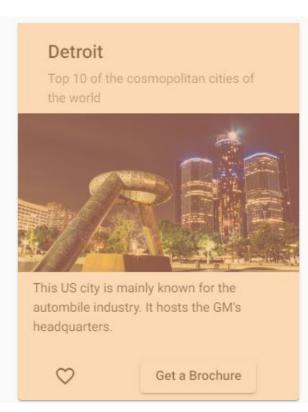


### Engines, combinations & nested selection

page.locator("data-testid=holiday-card");







### page.locator("data-testid=holiday-card >> text=Vienna");



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#### Detroit

Top 10 of the cosmopolitan cities of the world



This US city is mainly known for the autombile industry. It hosts the GM's headquarters.



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NSIDE KNOWLEDGE

### page.locator("\*data-testid=holiday-card >> text=Vienna");



Dive into the capital of the Habsburg empire



With a population of almost 2 million, Vienna is the second largest Germanspeaking city and breathes history in every

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### page.locator("data-testid=holiday-card", {hasText: "Vienna"});

# Vienna / Wien With a population of almost 2 million, Vienna is the second largest Germanspeaking city and breathes history in every

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### page.locator("data-testid=holiday-card", { has: page.locator("text=Vienna") })



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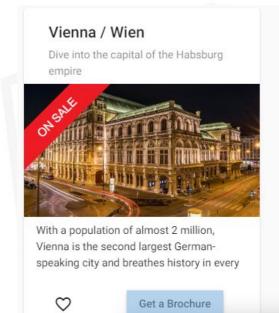
This US city is mainly known for the autombile industry. It hosts the GM's headquarters.



# Going down - v1

### page

- .locator("data-testid=holiday-card", { has: page.locator("text=Vienna") })
- .locator("data-testid=btn-brochure")





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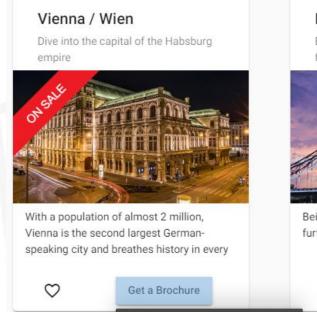
This US city is mainly known for the autombile industry. It hosts the GM's headquarters.





## Going down - v2

page.locator("data-testid=btn-brochure >> nth=0")



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# Going down - v3 🏆

page

```
.locator(`data-testid=holiday-card`, {
  has: this.page.locator("mat-card-title", { hasText: "Vienna" })
})
.locator("data-testid=btn-brochure")
```



Dive into the capital of the Habsburg empire



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### Layout-specific tests

```
test("layout selectors", async ({ page }) => {
  await expect(
    page.locator("p:right-of(:has-text('Logout'))")
  ).not.toBeVisible();
  await expect(
    page.locator("p:left-of(:has-text('Logout'))")
  ).not.toBeVisible();
  await expect(page.locator("p:below(:has-text('Logout'))")).toContainText(
    "Welcome"
  );
});
```



### **Actions**

- click
- fill
- waitFor
  - o can be used instead of matcher
- first
  - Required for strict mode
- locator
  - Nested selections



# Actionability built-in

- Based on action, Playwright runs checks before the action
- Checks
  - Attached
  - Visible
  - Stable
  - Receive Events (no overlay)
  - Enabled
  - Editable



### **Assertions**

await expect([locator]).[matcher]



### Assertions 1/2

- Assertions are build-in (Part of Playwright)
- Apply matchers to element
  - Always use locator
  - Don't forget about the await
- Verify that element(s) can be found
  - use waitFor() instead expect



### Assertions 2/2 - Common Matchers

- toBeVisible
- toHaveCount
- toHaveText
- toContainText
- toBeVisible
- not.[otherMatcher]

