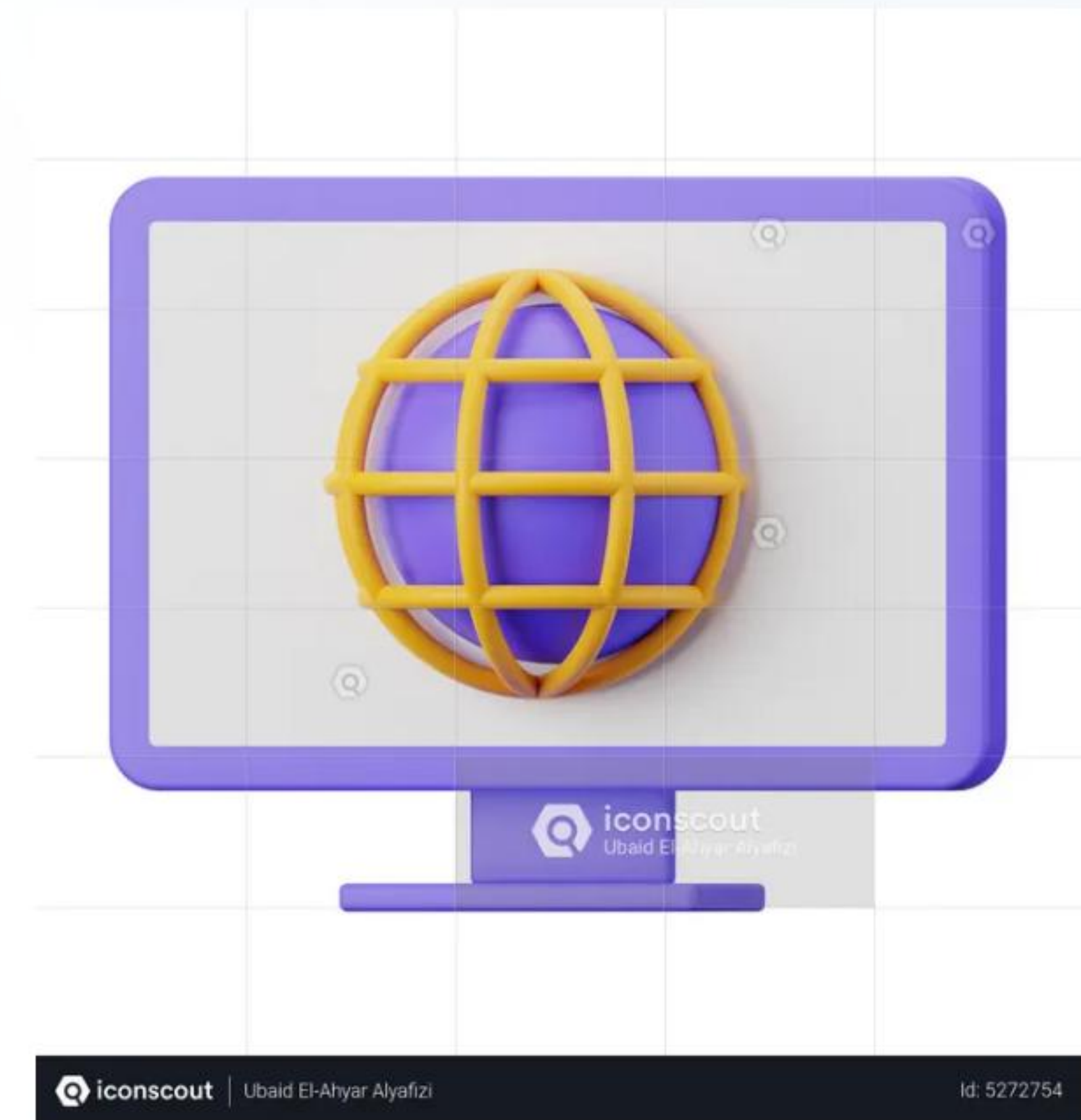# Playwright Mastery
Interview Q&A (Part 2)

Deep Dive into Advanced Automation Concepts

Q1: HOW TO TAKE A SCREENSHOT?

Playwright provides a built-in method to capture full pages, specific elements, or even visible viewports without external dependencies.

```
// Full Page Screenshot
await page.screenshot({ path: 'full.png', fullPage: true });

// Element-specific Screenshot
const logo = page.locator('.logo');
await logo.screenshot({ path: 'logo.png' });
```

Q2: WHAT IS CODEGEN?

Playwright comes with a CLI tool that opens a browser and records your actions to generate test code automatically.

Recording

Records clicks, typing, and navigation in real-time.

Auto-Generation

Generates JS, TS, Python, Java, or C# code on the fly.

CLI Command

Run: `npx playwright codegen google.com`

Q3: WHAT IS BROWSERCONTEXT?

A **BrowserContext** is an isolated incognito-like session within a browser instance.

🛡️ **Isolation:** No shared cookies or cache.

⚡ **Performance:** Fast and cheap to create.
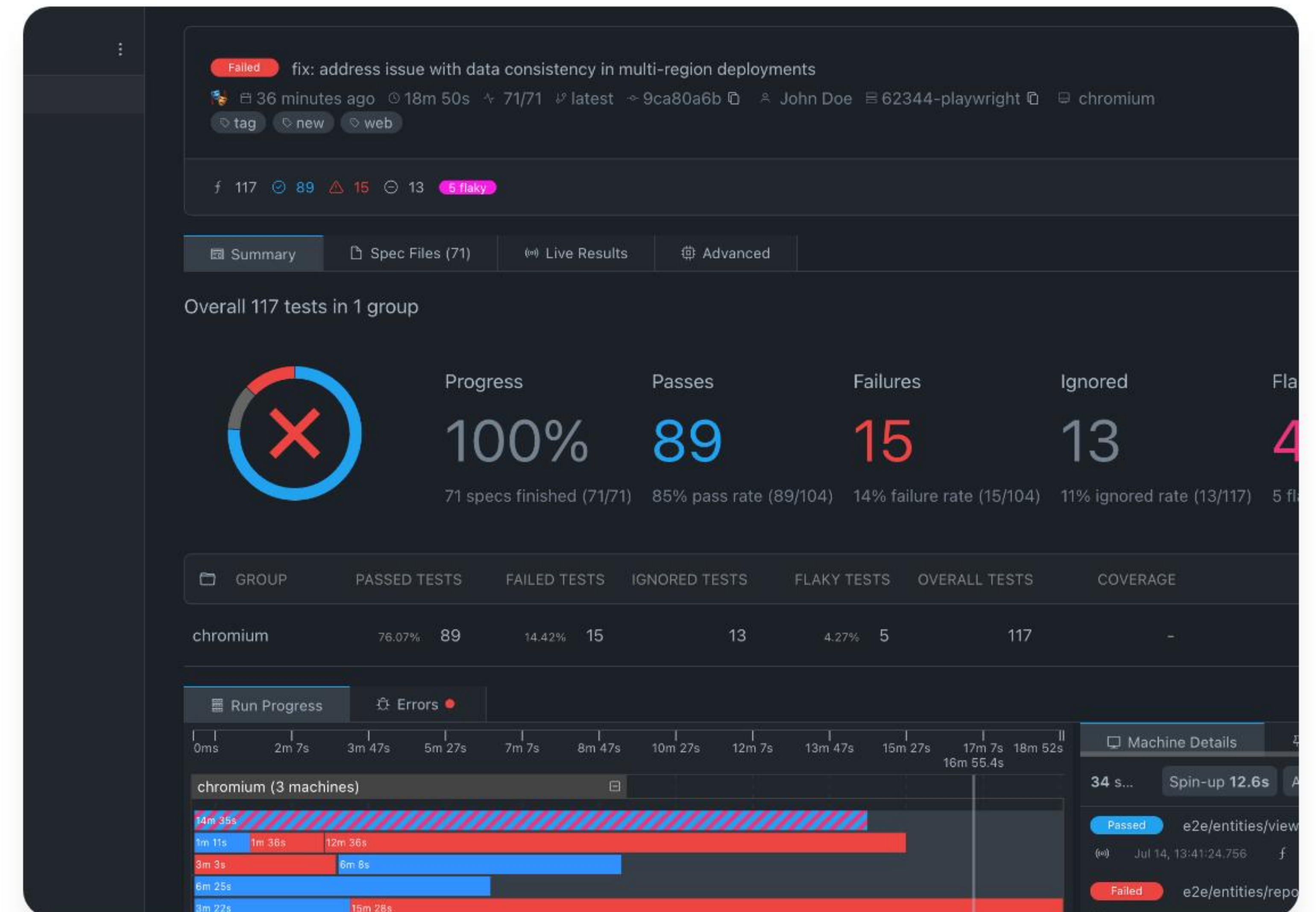
👥 **Multi-login:** Test different users simultaneously.

Q4: BROWSER VS. BROWSERCONTEXT?

Feature	Browser	BrowserContext
Nature	Operating System Process	Isolated Session (Incognito)
Creation Cost	Heavy / Expensive	Lightweight / Inexpensive
Storage	Global across threads	Isolated Storage & Cookies
Typical Usage	Launched once per suite	Created once per test

Q5: WHAT IS TRACING?

Tracing is a powerful debugging tool that captures the entire test execution lifecycle for post-mortem analysis.

Screencasts: View video of execution.

DOM Snapshots: Inspect HTML at any step.

Network Logs: View all API calls.

Console Errors: Identify JS failures.

Q6: HOW TO GENERATE A TRACE?

Traces are usually enabled in the `playwright.config.ts` file to capture data on failures or retries.

```typescript
// playwright.config.ts
export default defineConfig({
  use: {
    // Options: 'on', 'off', 'retain-on-failure', 'on-first-retry'
    trace: 'retain-on-failure',
  },
});
```
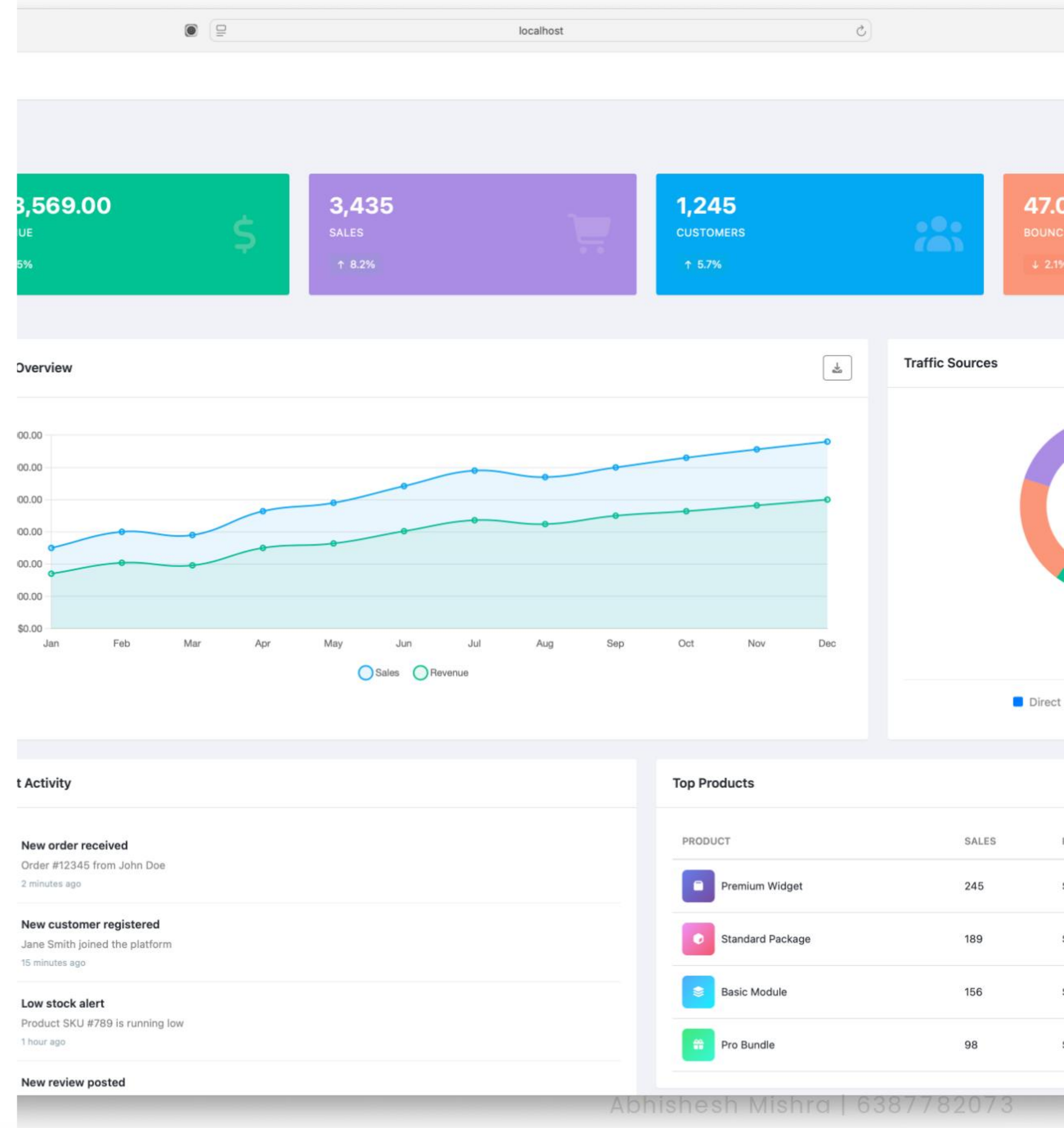
You can also run via CLI: `npx playwright test --trace on`

Q7: HOW TO VIEW REPORTS?

Playwright generates a comprehensive HTML report summarizing test status, duration, and attachments.

CLI COMMAND

```
npx playwright show-report
```

Q8: HOW TO HANDLE MULTIPLE TABS?

```
const [newPage] = await Promise.all([
  // Wait for 'popup' or 'page' event
  context.waitForEvent('page'),
  page.locator('#open-tab').click(),
]);

await newPage.waitForLoadState();
console.log(await newPage.title());
```
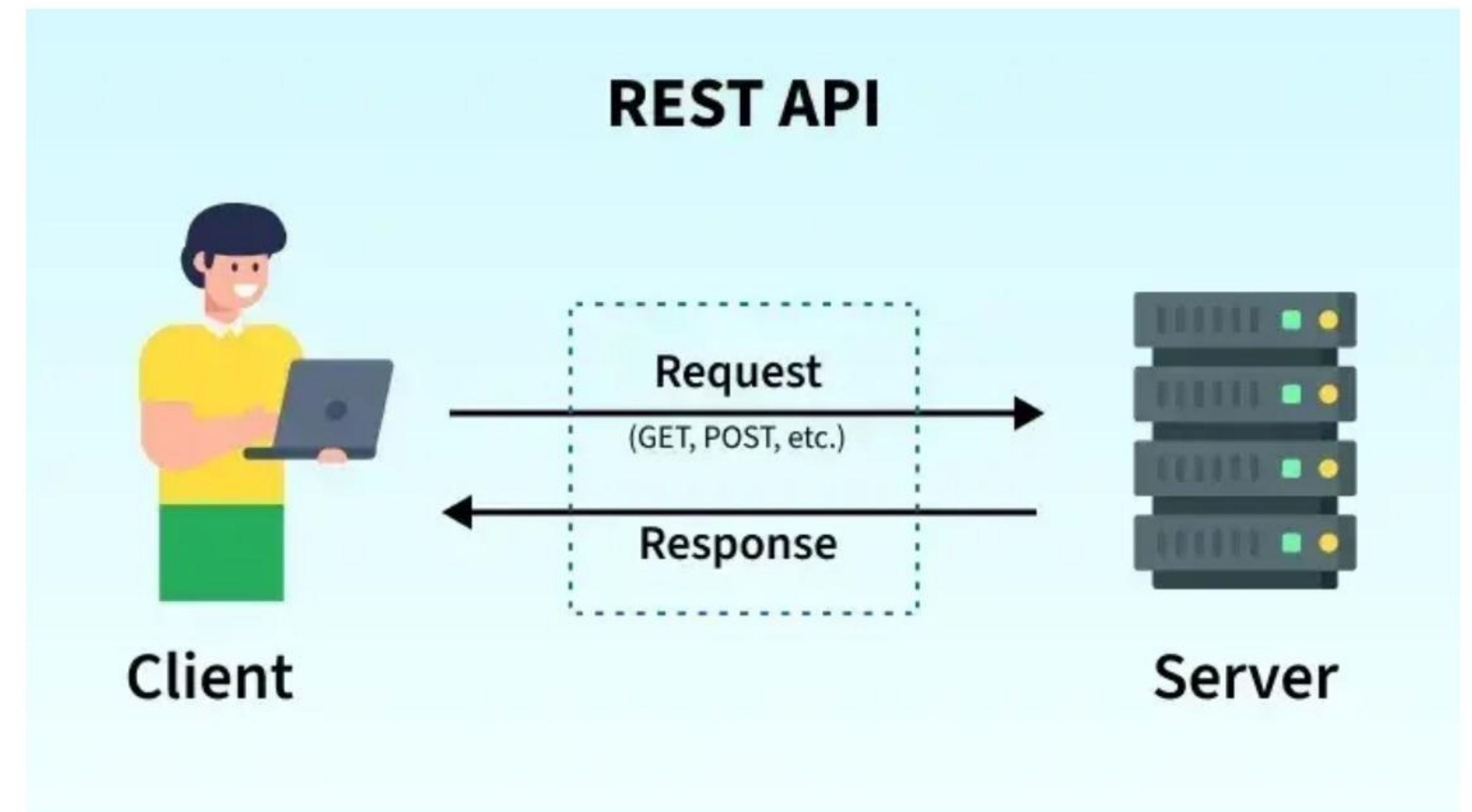
Q9: HOW TO PERFORM API TESTING?

Playwright can handle REST API requests directly using the request fixture, allowing for headless data validation.

```
test('API Test', async ({ request }) ⇒ {
  const response = await request.get('/api/data');
  expect(response.ok()).toBeTruthy();
  const body = await response.json();
  expect(body.name).toBe('John');
});
```


REST API

Request
(GET, POST, etc.)

Response

Client   Server

Q10: WHY PAGE OBJECT MODEL (POM)?

POM is a design pattern that creates an object repository for web elements and reusable logic.

Reusability

Write selectors once, use them across multiple test files.

Easy Maintenance

UI changes? Only update the Page class, not every test.

Readability

Tests look like plain English actions (e.g., `loginPage.submit()`).

Ready to Ace your
Playwright Interview?

Follow for more automation guides!

Abhishesh Mishra

Automation Expert

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IMAGE SOURCES

https://playwright.dev/img/playwright-logo.svg

Source: playwright.dev

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Source: iconscout.com

https://img.icons8.com/pulsar-gradient/1200/sandbox.jpg

Source: icons8.com

https://currents.dev/_next/image?url=%2F_next%2Fstatic%2Fmedia%2Flive-demo-preview.ea57cf47.png&w=3840&q=100

Source: currents.dev

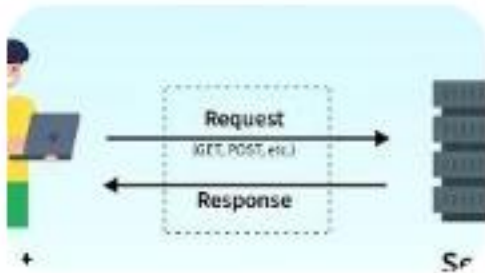https://colorlib.com/wp/wp-content/uploads/sites/2/elaadmin-dashboard-template.png

Source: colorlib.com

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IMAGE SOURCES

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Source: dev.to

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Source: www.freepik.com