Cypress Automation Interview Questions & Answers

1. What is Cypress?
Cypress is a JavaScript-based end-to-end testing framework for modern web applications.

Example:
```
describe('Cypress Test', () => {
  it('Visits the site', () => {
    cy.visit('https://example.com');
  });
});
```

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2. Difference between Cypress and Selenium?
- Cypress runs in the browser, while Selenium uses a WebDriver.
- Cypress is faster with automatic waiting.

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3. How do you install Cypress?
Run:
npm install cypress --save-dev

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4. How to launch Cypress?
Run:
npx cypress open

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5. Cypress commands structure?
Example:
```
cy.visit("https://example.com");
cy.get("#username").type("testUser");
cy.get("#password").type("securePass");
cy.get("#loginBtn").click();
```

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6. How to handle alerts in Cypress?
```
cy.on('window:alert', (str) => {
  expect(str).to.equal('Alert message');
});
```

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7. How to select elements in Cypress?
- By ID: cy.get("#id")
- By Class: cy.get(".class")

- By Attribute: cy.get("[name='username']")

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8. How to assert elements in Cypress?
cy.get("#message").should("have.text", "Success");

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9. How to handle API testing in Cypress?
```
cy.request('GET', 'https://jsonplaceholder.typicode.com/posts/1')
  .then((response) => {
    expect(response.status).to.eq(200);
  });
```

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10. How to handle iframes in Cypress?
```
cy.frameLoaded("#iframeId");
cy.iframe().find("#button").click();
```

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11. How to use Cypress with fixtures?
```
cy.fixture('data.json').then((data) => {
  cy.get("#username").type(data.username);
});
```

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12. How to handle multiple tabs in Cypress?
Cypress doesn't support multiple tabs, but we can simulate clicks with `target=_self`.

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13. How to run tests in headless mode?
Run:
npx cypress run --headless

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14. How to use environment variables in Cypress?
Set in `cypress.json`:
{ "env": { "username": "testUser" } }

Access in tests:
cy.get("#username").type(Cypress.env("username"));

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15. What are Cypress Hooks?
Hooks are `before()`, `beforeEach()`, `after()`, and `afterEach()`.

Example:

```
beforeEach(() => {
  cy.visit("https://example.com");
});
```

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16. How to do parallel execution in Cypress?
Using:
npx cypress run --record --parallel

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17. How to handle file uploads in Cypress?
cy.get('input[type="file"]').attachFile('example.png');

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18. How to handle drag and drop in Cypress?
cy.get("#source").drag("#target");

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19. How to capture screenshots in Cypress?
cy.screenshot("screenshot-name");

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20. How to generate Cypress test reports?
Use:
npm install mochawesome --save-dev

Run:
npx cypress run --reporter mochawesome