05 **End-to-End Testing: Basics**

Testing React Apps

Similar names

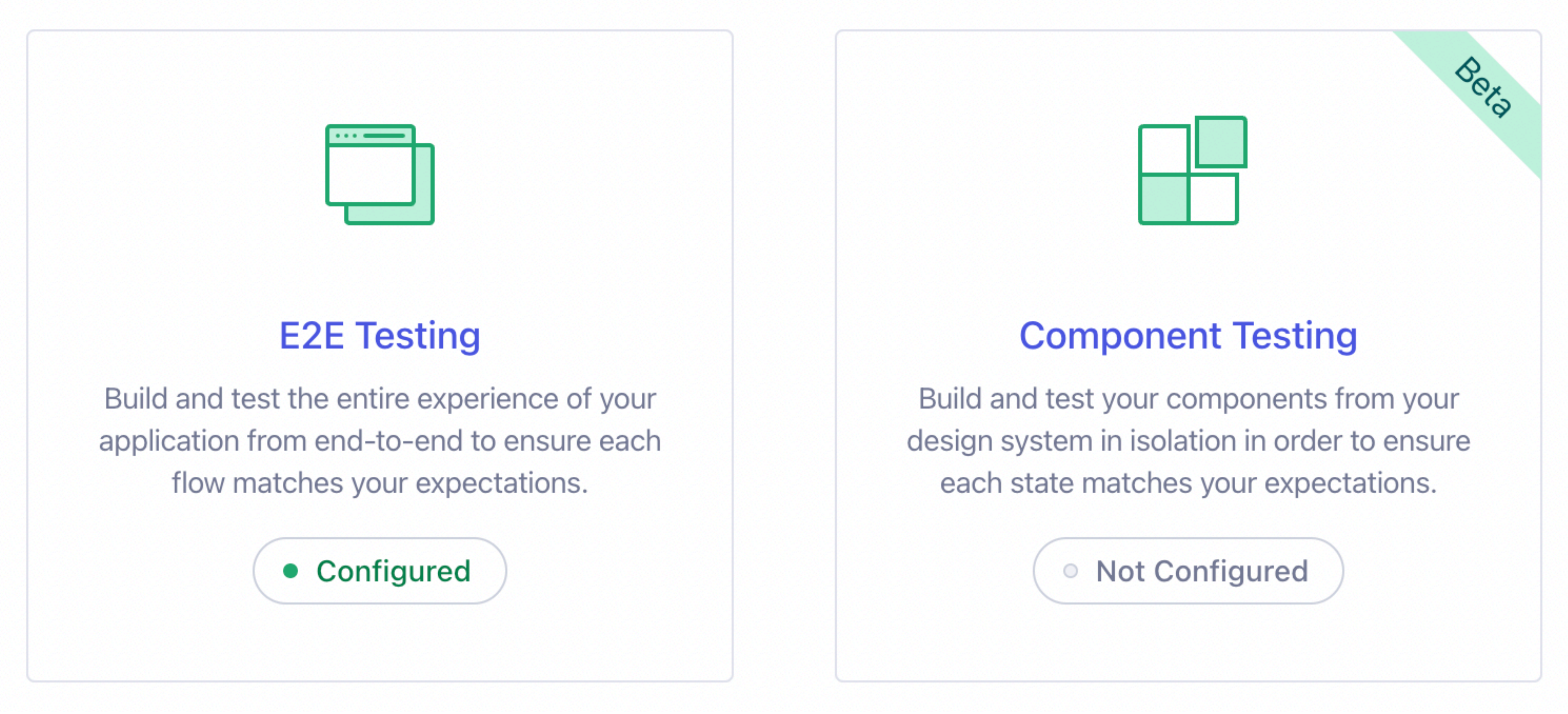
- UI automation/browser automation
- Acceptance/feature/functional
- End-to-end/system

Choosing an E2E Test Library

There are a lot of E2E options on the web

cypress

Cypress Does Component Tests Too



E2E Testing

Build and test the entire experience of your application from end-to-end to ensure each flow matches your expectations.

● Configured

Component Testing

Build and test your components from your design system in isolation in order to ensure each state matches your expectations.

○ Not Configured

To the code!

```
it('can identify text', () => {
  cy.visit('/');

  cy.contains('Welcome to React!');
  cy.get('[data-cy="welcome"]').contains('Welcome to React!');
});
```

cy.visit()

Key difference of E2E tests:

instead of rendering JSX, we visit a URL

Selecting Elements (Cypress Guides)

```
cy.get('[data-cy="some-id"]') // always
cy.contains('Some Text') // depends
cy.get('#some-id') // sparingly
cy.get('.some-class') // never
```

Verifications

```
cy.get(...).contains('Welcome to React!');

cy.get(...).should('exist');
cy.get(...).should('be.visible');
cy.get(...).should('not.exist');
cy.get(...).should('contain', 'Welcome to React!');
cy.get(...).should('have.class', 'active');
```

What to E2E test?

Happy path, not all edge cases

To the code!

```
cy.get('[data-cy="my-button"]').click();
```

No Await

- Cypress commands don't run instantly. They are enqueued to run later.
- When the browser automation begins, it is asynchronous.

```
cy.get('[data-cy="my-button"]').click();
cy.get('[data-cy="my-text-input"]').type('I typed this');
cy.get('[data-cy="my-text-input"]').clear().type('Something else');
```

Actions

```
.click()
.type(text)
.clear()
.select(value)
cy.scrollTo(position)
```