



Watch Tests Go Brrrrrr

Implementing Cypress into a ReactJS Application for Beginners

Agenda

1. What is end-to-end testing?
2. When should we use it?
3. Why Cypress?
4. Installation
5. Structuring Tests
6. The fun part: Watch tests go Brrrr!

<https://www.menti.com/wu9geft2o9>



Active participation, please!

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What is End-to-End Testing?

Expensive.

Expensive.

...but super cool.



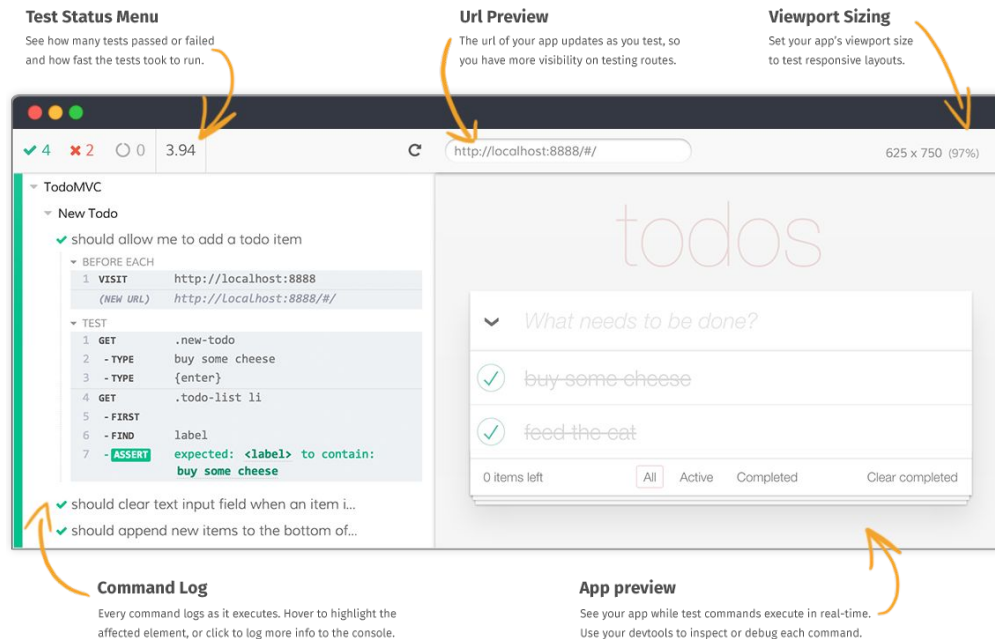
What is End-to-End Testing?

- Tests an entire user path
- Is purely about user experience

Why Cypress?

Cypress is the leading E2E JavaScript tool

1. Time travel
2. Automatic waiting
3. Cross-browser testing



The background is a grayscale photograph of a desk. On the right, a laptop is open, displaying a landscape image. In front of the laptop, there is a small, dark, geometric sculpture made of interlocking blocks, resembling a stylized 'X' or a complex crystal. To the left of the sculpture, there are some small, round objects, possibly coins or small gears. The overall scene is dimly lit, with the laptop screen providing a source of light.

Installation and Getting Started

The boring bit

Installation and Getting Started

```
npm install --save-dev cypress
```

```
npx cypress open
```

These commands:

- Install Cypress
- Creates a 'cypress' folder in your project
- Gives you SO MANY example tests to play with
- Opens the Cypress GUI to show you those tests as they run



Structuring Tests

Ooooh structure!

Structuring Pseudocode: Given, When, Then

Common backend structure

Given this state...

When this request/call is made...

Then the following should occur...



Structuring Pseudocode: Arrange, Act, Assert

Arrange:

What environment do we need for this test to run?

Act:

What is a user likely to do?

Assert:

What should a user see or experience in this scenario?



Let's write some tests!

What did we learn?

Theory:

- What is end-to-end testing and when is it used?
- E2E pros and cons
- Arrange / Act / Assert structure

Practice:

- Installation and folder structure
- Using `describe`, `beforeEach`, and `it`
- Cypress commands:
 - `cy.visit()`
 - `cy.wrap()`
 - `cy.get()` using CSS/Query selectors
 - `.type()`
 - `.click()`
 - `.within()`
 - `.should()`
 - `"be.enabled"`
 - `"be.visible"`
 - `"contain.text"`
 - `"have.length"`



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Let's chat!