

End to End UI Testing

Testing Tool Used: Cypress

----- Home Page Testing Code -----

```
// Home page code

describe("Home Page", () => {
  beforeEach(() => {
    // Visit the home page before each test
    cy.visit("/");
  });

  it("should display the hero section with correct content", () => {
    // Verify the hero section elements and content
    cy.get(".hero-section").should("be.visible");
    cy.contains("h1", "Welcome to EcoGrow AgroTech Solutions").should(
      "be.visible"
    );
    cy.contains("p", "Empowering Farmers, Enhancing
Agriculture").should(
      "be.visible"
    );
    cy.contains("a", "Explore Now").should("be.visible");
    cy.contains("a", "Discuss").should("be.visible");
  });

  it('should navigate to EcoShop page when "Explore Now" button is
clicked', () => {
    // Click on the "Explore Now" anchor tag and verify navigation to
EcoShop page
    cy.contains("a", "Explore Now").click();
    cy.url().should("include", "/ecoshop");
  });

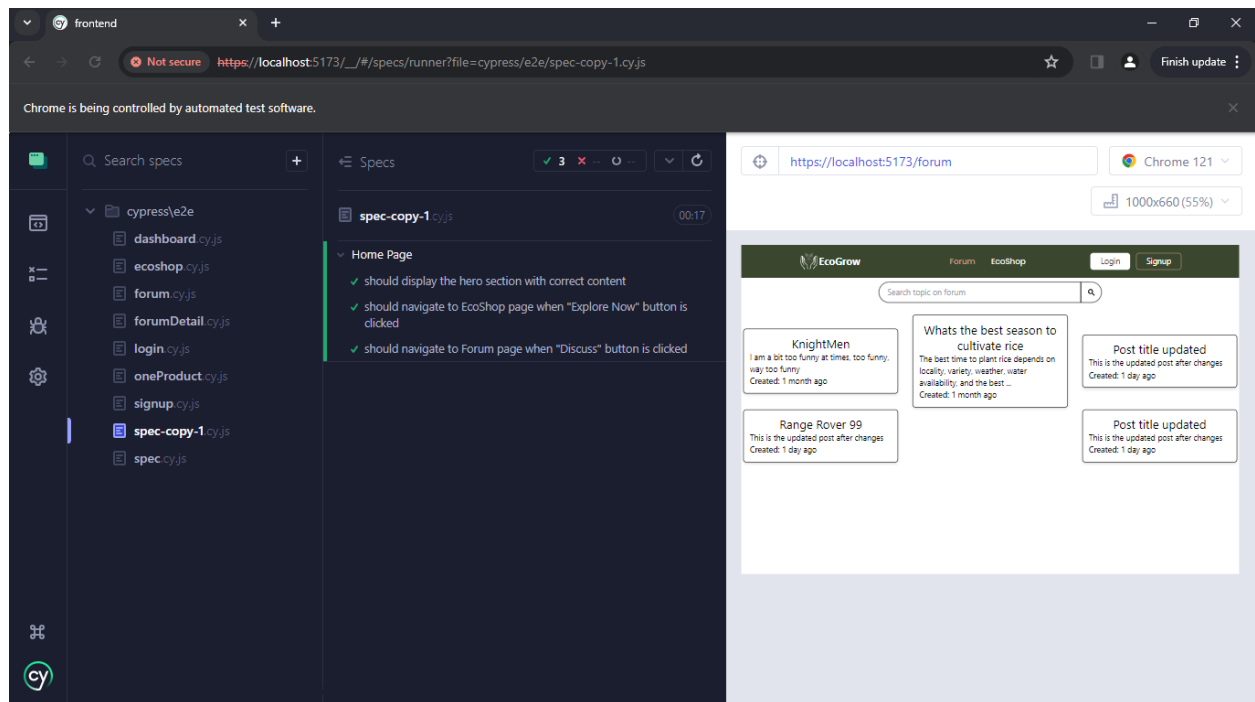
  it('should navigate to Forum page when "Discuss" button is clicked',
() => {
```

```

    // Click on the "Discuss" anchor tag and verify navigation to
    Forum page
    cy.contains("a", "Discuss").click();
    cy.url().should("include", "/forum");
  });
});

```

-----Results-----



-----Signup Testing code -----

```
// cypress/integration/signup.spec.js

describe("Signup Page", () => {
  beforeEach(() => {
    // Visit the Signup page before each test
    cy.visit("/"); // Assuming the Signup component is part of the home page
    cy.contains("Signup").click(); // Click on the Signup button to open the modal
  });

  it("should display the Signup form fields", () => {
    // Verify the presence of form fields
    cy.get('input[name="Full Name"]').should("be.visible");
    cy.get('input[name="Email"]').should("be.visible");
    cy.get('select[name="Signup As"]').should("be.visible");
    cy.get('input[name="Password"]').should("be.visible");
  });

  it("should enable the Signup button when all fields are filled correctly", () => {
    // Fill in the form fields
    cy.get('input[name="Full Name"]').type("John Doe");
    cy.get('input[name="Email"]').type("john.doe@example.com");
    cy.get('select[name="Signup As"]').select("Farmer");
    cy.get('input[name="Password"]').type("Password123");

    // Verify that the Signup button is enabled
    cy.get('button[type="submit"]').should("not.be.disabled");
  });

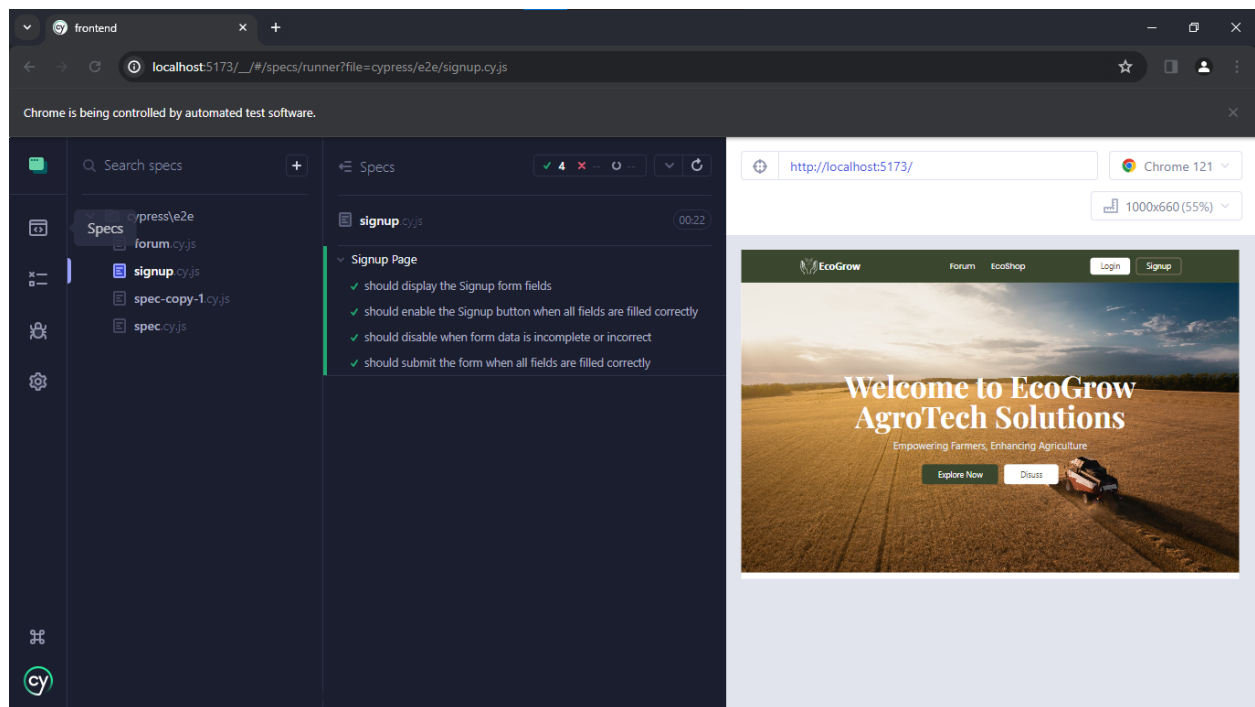
  it("should disable when form data is incomplete or incorrect", () => {
    // Attempt to submit the form without filling in any fields
    cy.get('button[type="submit"]').should("be.disabled");
  });
});
```

```
});

it("should submit the form when all fields are filled correctly", () => {
  // Fill in the form fields
  cy.get('input[name="Full Name"]').type("John Doe");
  cy.get('input[name="Email"]').type("john.doe@example.com");
  cy.get('select[name="Signup As"]').select("Farmer");
  cy.get('input[name="Password"]').type("Password123");

  // Submit the form
  cy.get('button[type="submit"]').click();
});
});
```

-----Result-----



-----Login Testing code-----

```
// cypress/integration/login.spec.js

describe("Login Page", () => {
  beforeEach(() => {
    // Visit the home page before each test
    cy.visit("/");
  });

  it("should open the Login modal when Login button is clicked", () => {
    // Click on the Login button to open the modal
    cy.contains("Login").click();

    // Verify that the Login modal is displayed
    cy.get(".modal").should("be.visible");
  });

  it("should display the Login form fields", () => {
    // Open the Login modal
    cy.contains("Login").click();

    // Verify the presence of form fields in the modal
    cy.get('input[name="Email"]').should("be.visible");
    cy.get('input[name="Password"]').should("be.visible");
  });

  it("should enable the Login button when all fields are filled correctly", () => {
    // Open the Login modal
    cy.contains("Login").click();

    // Fill in the form fields
    cy.get('input[name="Email"]').type("test@example.com");
    cy.get('input[name="Password"]').type("password");
  });
});
```

```
// Verify that the Login button is enabled
cy.get('button[type="submit"]').should("not.be.disabled");
});

it("Should disable the Login button when form data is incomplete or incorrect", () => {
  // Open the Login modal
  cy.contains("Login").click();

  // Verify that an error message is displayed
  cy.get('button[type="submit"]').should("be.disabled");
});

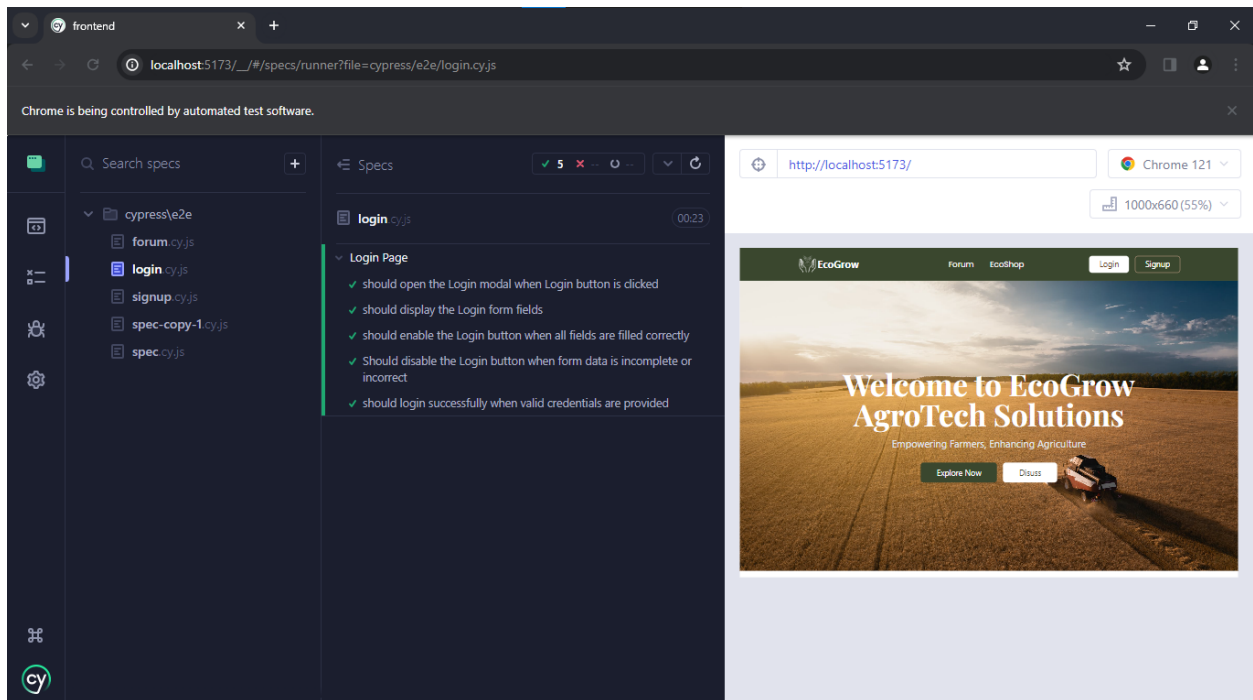
it("should login successfully when valid credentials are provided", () => {
  // Open the Login modal
  cy.contains("Login").click();

  // Fill in the form fields with valid credentials
  cy.get('input[name="Email"]').type("test@example.com");
  cy.get('input[name="Password"]').type("password");

  // Submit the form
  cy.get('button[type="submit"]').click();

  // Verify that the modal is closed after successful login
  cy.get(".modal").should("not.exist");
});
});
```

-----Result-----



-----Forum Page-----

```
describe("Forum Page", () => {
  beforeEach(() => {
    // Visit the Forum page before each test
    cy.visit("/forum");
  });

  it("should display the search bar", () => {
    // Verify the presence of the search bar
    cy.get(".forum-search-bar").should("exist");
  });

  it('should display "Post Question" button', () => {
    // Verify the presence of the "Post Question" button
    cy.get(".search-button").should("be.visible");
  });

  it("should display loading text", () => {
```

```

// Verify the presence of the loading text
cy.contains("Loading...").should("exist");
});

it("should display forum topics after loading", () => {
// Verify that the loading text disappears after a delay of 1000ms
cy.contains("Loading...").should("not.exist");

// Verify the presence of forum topics
cy.get(".forum-card").should("have.length.greaterThan", 1);
});
});

```

-----Results-----

The screenshot shows the Cypress test runner interface. On the left, the 'Specs' panel lists the test suite 'forum.cy.js' under the folder 'cypress/e2e'. The 'Forum Page' suite is expanded, showing four passing tests: 'should display the search bar', 'should display "Post Question" button', 'should display loading text', and 'should display forum topics after loading'. The right panel shows the browser view of the application at 'http://localhost:5173/forum'. The application is 'EcoGrow' and displays a forum page with a search bar, a list of forum topics (including 'KnightMen', 'Range Rover 99', and 'Whats the best season to cultivate rice'), and two 'Post title updated' notifications. The browser window title is 'frontend' and the address bar shows 'localhost:5173/_/#/specs/runner?file=cypress/e2e/forum.cy.js'.

-----EcoShop Page Testing-----

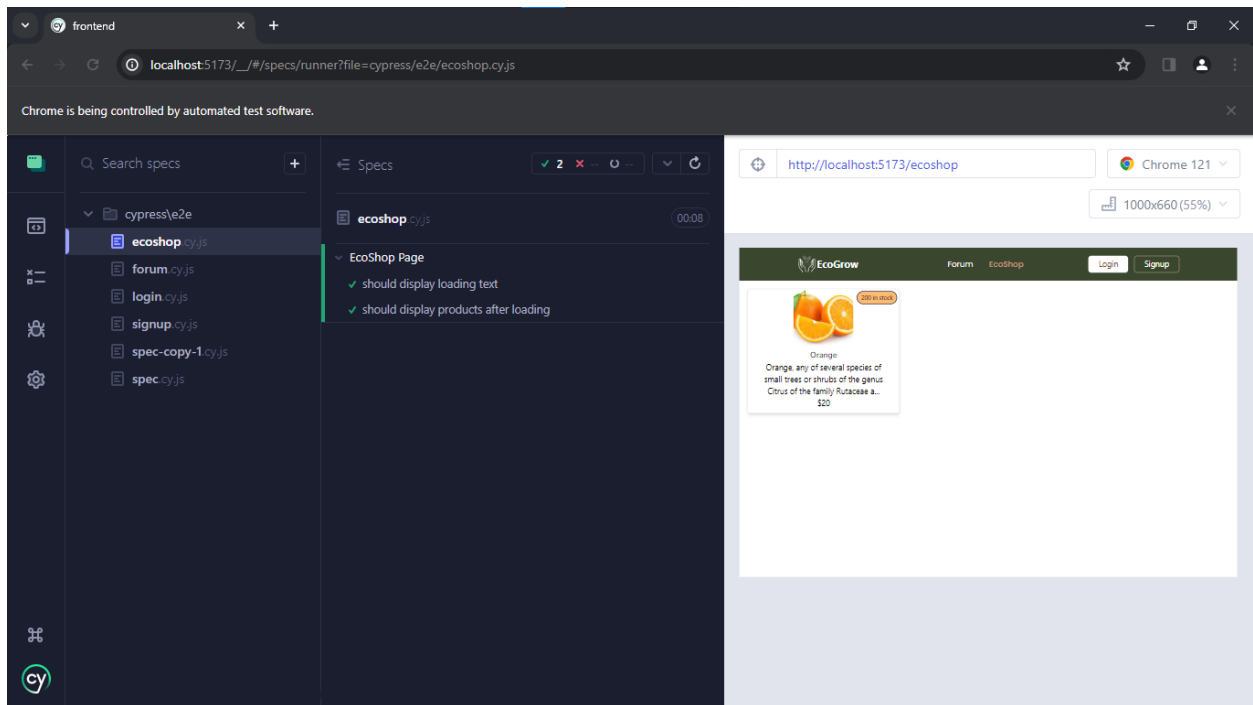
```
describe("EcoShop Page", () => {
  beforeEach(() => {
    // Visit the EcoShop page before each test
    cy.visit("/ecoshop");
  });

  it("should display loading text", () => {
    // Verify the presence of the loading text
    cy.contains("Loading...").should("exist");
  });

  it("should display products after loading", () => {
    // Verify that the loading text disappears after a delay of 1000ms
    cy.contains("Loading...").should("not.exist");

    // Verify the presence of products
    cy.get(".product-card").should("have.length.gte", 1);
  });
});
```

-----Results-----



-----Dashboard Page-----

```
// cypress/integration/dashboard.spec.js

describe("Dashboard Page", () => {
  beforeEach(() => {
    // Visit the home page before each test
    cy.visit("/");

    // Click on the Login button to open the modal
    cy.contains("Login").click();

    // Fill in the form fields with valid credentials
    cy.get('input[name="Email"]').type("adminlia1919@gmail.com");
    cy.get('input[name="Password"]').type("IamPro200k");

    // Submit the form
    cy.get('button[type="submit"]').click();
  });
});
```

```
// Verify that the modal is closed after successful login
cy.get(".modal").should("not.exist");

cy.wait(1000);
// Wait for the redirection to /forum and then navigate to /dashboard/forum
cy.location("pathname").should("eq", "/forum");
cy.visit("/dashboard/forum");
cy.wait(3000);
});

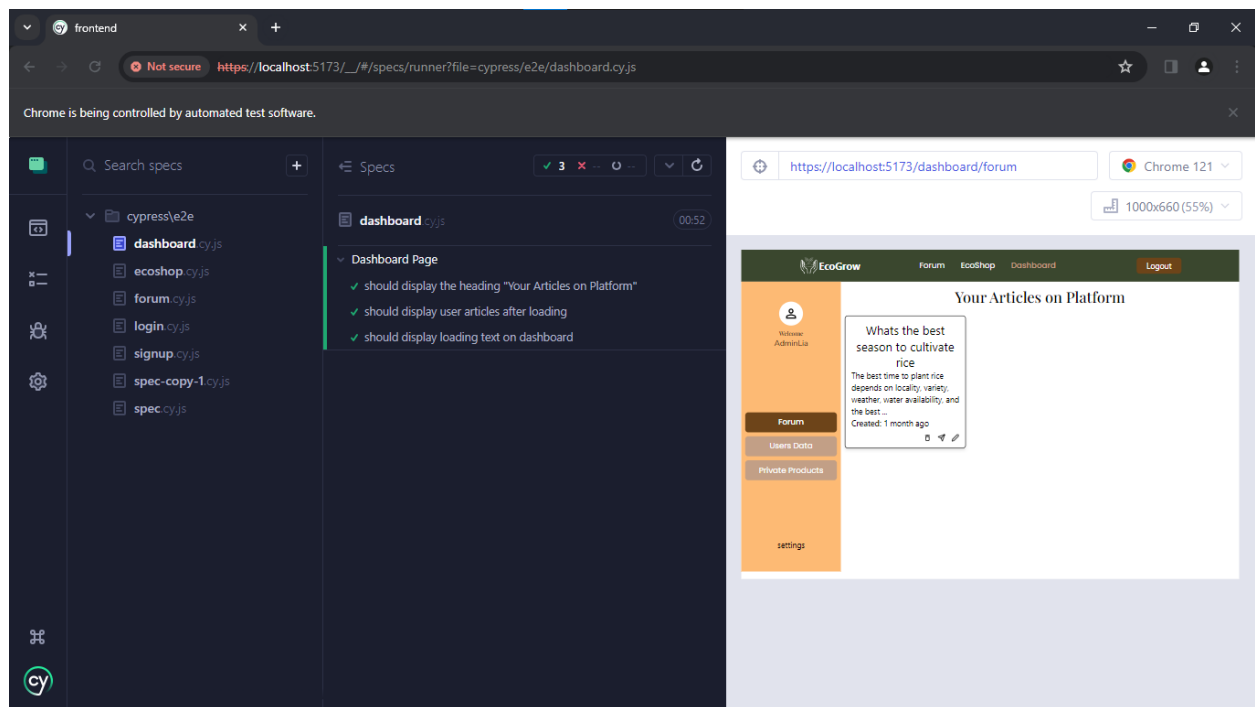
it('should display the heading "Your Articles on Platform"', () => {
  // Verify the presence of the heading
  cy.contains("Your Articles on Platform").should("exist");
});

it("should display user articles after loading", () => {
  // Wait for a brief moment before checking for forum cards
  cy.wait(1000);

  // Verify the presence of user articles after a delay
  cy.get(".forum-card").should("have.length.gte", 1);
});

it("should display loading text on dashboard", () => {
  // Verify the presence of loading text
  cy.contains("Loading...").should("exist");
});
});
```

-----Results-----



-----One Specific Forum Topic-----

```
// cypress/integration/dashboard.spec.js
```

```
describe("Dashboard Page", () => {  
  beforeEach(() => {  
    // Visit the home page before each test  
    cy.visit("/");  
  
    // Click on the Login button to open the modal  
    cy.contains("Login").click();  
  
    // Fill in the form fields with valid credentials  
    cy.get('input[name="Email"]').type("adminlia1919@gmail.com");  
    cy.get('input[name="Password"]').type("IamPro200k");  
  
    // Submit the form  
    cy.get('button[type="submit"]').click();
```

```
// Verify that the modal is closed after successful login
cy.get(".modal").should("not.exist");

// Wait for a brief moment before clicking on the forum link in the header
cy.wait(1000);

// Click on the forum link in the header
cy.contains("Forum").click();

// Wait for a brief moment before clicking on any forum card
cy.wait(1000);

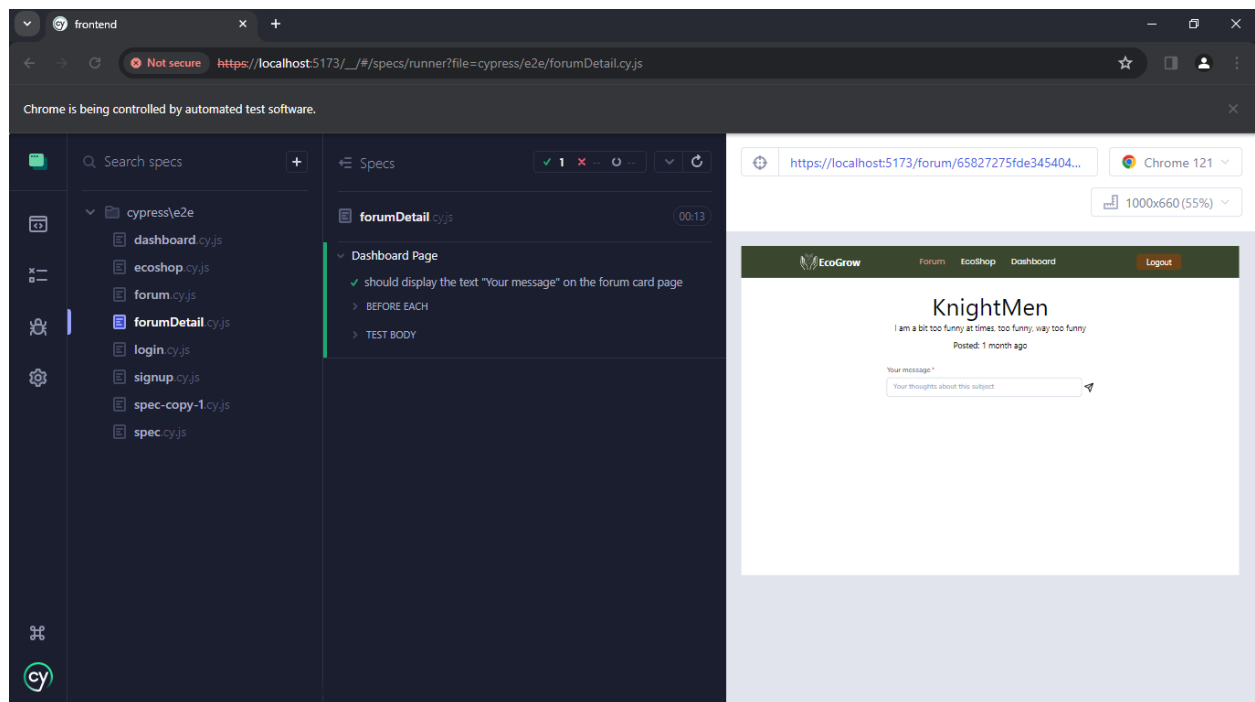
// Click on the first forum card to visit its page
cy.get(".forum-card").first().click();

// Wait for the redirection to the forum card page
cy.location("pathname").should("include", "/forum/");

// Wait for the forum card page to load
cy.wait(1000);
});

it('should display the text "Your message" on the forum card page', () => {
  // Verify the presence of the text "Your message"
  cy.contains("Your message").should("exist");
});
});
```

-----Results-----



-----One Product Page-----

```
// cypress/integration/dashboard.spec.js

describe("Dashboard Page", () => {
  beforeEach(() => {
    // Visit the home page before each test
    cy.visit("/");

    // Click on the Login button to open the modal
    cy.contains("Login").click();

    // Fill in the form fields with valid credentials
    cy.get('input[name="Email"]').type("adminlia1919@gmail.com");
    cy.get('input[name="Password"]').type("IamPro200k");

    // Submit the form
    cy.get('button[type="submit"]').click();
  });
});
```

```
// Verify that the modal is closed after successful login
cy.get(".modal").should("not.exist");

// Wait for a brief moment before clicking on the EcoShop link in the header
cy.wait(2000);

// Click on the EcoShop link in the header
cy.contains("EcoShop").click();

// Wait for a brief moment before clicking on any link with class "visit-link"
cy.wait(1000);

// Click on any link with class "visit-link"
cy.get(".visit-link").first().click();

// Wait for the redirection to the page
cy.location("pathname").should("not.eq", "/");

// Wait for the page to load
cy.wait(1000);
});

it('should display some text on the page visited from "EcoShop"', () => {
  // Verify the presence of any text on the page
  cy.wait(1000);
  cy.get("body").should("contain", "Orange");
});
});
```

-----Results-----

The screenshot displays the Cypress test runner interface. On the left, a sidebar shows a file explorer with the following structure:

- Search specs
- cyress\e2e
 - dashboard.cy.js
 - ecoshop.cy.js
 - forum.cy.js
 - forumDetail.cy.js
 - login.cy.js
 - oneProduct.cy.js
 - signup.cy.js
 - spec-copy-1.cy.js
 - spec.cy.js

The main panel shows the 'Specs' view for 'oneProduct.cy.js' (00:17). The test suite is 'Dashboard Page' and it contains one test:

- ✓ should display some text on the page visited from "EcoShop"
 - > BEFORE EACH
 - > TEST BODY

The right panel shows the browser view of the application at <https://localhost:5173/ecoshop/65827c2bb1ed1bf...>. The browser is Chrome 121. The application page shows a product listing for 'Orange' with a price of \$20 and stock of 200. The page includes a navigation bar with 'EcoGrow', 'Forum', 'EcoShop', 'Dashboard', and a 'Logout' button. The product description reads: 'Orange, any of several species of small trees or shrubs of the genus Citrus of the family Rutaceae and their nearly round fruits, which have leathery and oily rinds and edible, juicy inner flesh.'