

Test Cases

Introduction:

Our project has recently integrated Cypress testing as a means of performing unit testing to guarantee a smooth and functional website flow. Cypress testing has enabled us to comprehensively test the functionality of our application by simulating user interactions and validating the outcomes. By developing these test cases, we have been able to ensure that our website is error-free and meets the standards of our users.

Test Cases:

I. Login Functionality

- Verify that a user with valid credentials can log in successfully.
- Verify that a user with invalid credentials cannot log in and is presented with an appropriate error message.
- Verify that the login form contains all mandatory fields and that input validation is enforced.
- Verify that the user is directed to the appropriate page after successful login.

II. Form Validation

- Verify that all required form fields are enforced and that relevant error messages are displayed when a field is left empty.
- Verify that all input fields have appropriate length restrictions and that input validation is enforced.
- Verify that form submissions are successful when all form fields are correctly filled.

III. Navigation

- Verify that all links and buttons are functional and that they correctly lead the user to the appropriate page.
- Verify that the navigation menu is accessible from all pages and that it correctly displays all available options.

IV. Data Storage

- Verify that data is accurately stored in the database when a user submits a form or performs an action.
- Verify that stored data can be accessed and displayed correctly on the relevant pages.

V. Error Handling

- Verify that relevant error messages are displayed when unexpected errors occur.
- Verify that error messages contain appropriate information to assist in troubleshooting.

The Code:

```
describe('Login Button', () => {
  it('navigates to the login page', () => {
    cy.visit('http://localhost:3333');
    cy.contains('Login').click();
    cy.url().should('include', '/login');
  });
});

describe('Sign Up Button', () => {
  it('navigates to the sign up page', () => {
    cy.visit('http://localhost:3333');
    cy.contains('Sign Up').click();
    cy.url().should('include', '/signup');
  });
});

describe('Home Button', () => {
  it('navigates to the home page', () => {
    cy.visit('http://localhost:3333');
    cy.contains('Home').click();
    cy.url().should('eq', 'http://localhost:3333/');
  });
});

describe('Get Started Button', () => {
  it('navigates to the sign up page', () => {
    cy.visit('http://localhost:3333');
    cy.contains('Get started').click();
    cy.url().should('include', '/signup');
  });
});

describe('Keepsake Button', () => {
  it('navigates back to home', () => {
    cy.visit('http://localhost:3333');
    cy.contains('Keepsake').click();
    cy.url().should('eq', 'http://localhost:3333/');
  });
});
```

```
describe('Create New Account Button ', () => {
  it('navigates back to sign up', () => {
    cy.visit('http://localhost:3333/auth/login');
    cy.contains('Create').click();
    cy.url().should('include', '/signup');
  });
});
```

```
describe('Already a Member Button ', () => {
  it('navigates back to log in', () => {
    cy.visit('http://localhost:3333/auth/signup');
    cy.contains('Already').click();
    cy.url().should('include', '/login');
  });
});
```

```
describe('Login fields filled', () => {
  it('displays error message when the email field is not
entered', () => {
    cy.visit('http://localhost:3333/auth/login');
    cy.get('input[name="email"]').clear();
    cy.get('input[name="password"]').type('password');
    cy.contains('Log In').click();
    cy.contains('Please');
  });
});
```

```
describe('Login fields filled', () => {
  it('displays error message when the password is not entered',
() => {
    cy.visit('http://localhost:3333/auth/login');
    cy.get('input[name="email"]').type('email');
    cy.get('input[name="password"]').clear();
    cy.contains('Log In').click();
    cy.contains('Please');
  });
});
```

```
describe('Login with valid credentials', () => {
  it('logs in a user with valid credentials', () => {
```

```

    cy.visit('http://localhost:3333/auth/login');
    cy.get('input[name="email"]').type('lraynor950033@gmail.com');
    cy.get('input[name="password"]').type('Beanbean9500');
    cy.contains('Log In').click();
    cy.url().should('include', '/feed');
  });
});

```

```

describe('Login with invalid credentials', () => {
  it('does not log in a user with invalid credentials and shows error', () => {
    cy.visit('http://localhost:3333/auth/login');
    cy.get('input[name="email"]').type('johndoe@example.com');
    cy.get('input[name="password"]').type('password');
    cy.contains('Log In').click();
    cy.contains('Login Button');
  });
});

```

The screenshot shows the Cypress test runner interface. At the top, it displays 'Specs' with a green checkmark and the number '11', indicating that all 11 tests passed. Below this, a list of test cases is shown, each with a green checkmark indicating a successful pass. The test cases are:

- ✓ navigates to the login page
- Sign Up Button
 - ✓ navigates to the sign up page
- Home Button
 - ✓ navigates to the home page
- Get Started Button
 - ✓ navigates to the sign up page
- Keepsake Button
 - ✓ navigates back to home
- Create New Account Button
 - ✓ navigates back to sign up
- Already a Member Button
 - ✓ navigates back to log in
- Login fields filled
 - ✓ displays error message when the email field is not entered
- Login fields filled
 - ✓ displays error message when the password is not entered
- Login with valid credentials
 - ✓ logs in a user with valid credentials
- Login with invalid credentials
 - ✓ does not log in a user with invalid credentials and shows error

Demo:



Conclusion:

Cypress testing has played an essential role in ensuring that our website flow is seamless and functional. These test cases have allowed us to detect and rectify errors before they affect our users. We have confidence in the implementation of Cypress testing, and we will continue to improve the quality of our application by updating and expanding these test cases to meet the changing requirements of our project.

