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Origin - Take-Home Assignment

This project refers to automated interface tests (end-2-end) that uses Cypress as a framework. This repository contains test cases for the Buy a House page.

Frameworks

 - [Cypress] (https://www.cypress.io/)

Plugins

 - [Cypress-Grep (Tags)] (https://github.com/cypress-io/cypress-grep)
 - Cypress-mochawesome-report-generator] (https://github.com/adamgruber/mochawesome-report-generator)

Versions

 - Node v18.15.0
 - Cypress 12.8.1

How to run Tests, Tags and Reports

For Cypress and plugins installation, check the readMe file.

Running the Tests

There are diferent commands to use in your terminal for each type of test:
To run the tests with the browser open:
    npm run cy:open

To run the tests with the browser open with Width=410 and Height=860:
npm run cy:open:mobile

To run the tests headlessly:
npm run test

To run the tests headlessly with Width=410 and Height=860:
npm run test:mobile

To run Tags tests you can use one of these:
npx cypress run --env grepTags=@date
npx cypress run --env grepTags=@money
npx cypress run --env grep="money; date"

To run tests with reports:
npx cypress run --reporter mochawesome

Report Examples and Test Results
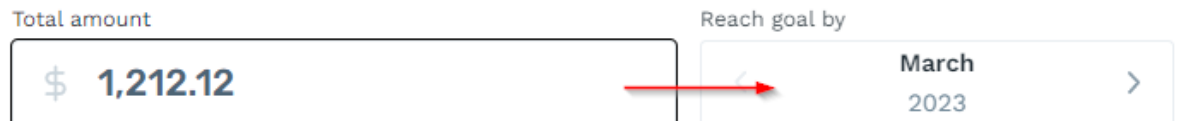
The report tool selected for this test was the mochawesome report generator, which generates a html file in the results folder, showing all steps of each test.
Here's an example:

Bugs Found

One bug was found during tests:
- Inputting more than 21 numbers in the "Total Amount" field will result in an error displaying letters and special characters.
  Here is an example:

Possible Improvements

There are some points that can't be reported as bugs, but may improve user experience:
Accessibility Improvement:
- TABs: When the focus is set in the "Total Amount" field and the user presses the tab key in the keyboard, it is expected the focus will go to the "Reach Goal by" field.
In other words, if the user has just filled in the field "Total Amount", pressing the tab he can go to the field "Reach goal by" and edit it with the keyboard right and left arrows.

Mobile Improvement:
- Monthly amounts: Once this field reaches a certain number of characters, it starts displaying '...' at the end and does not show the total amount. This issue is ease to see when using mobile version.

Technical Decisions

Usage of Cypress Framework - The decision to use Cypress was supported by the large community that exists today. Facilitating the search for documentation, examples and plugins.

Plugin [Tags] - The decision to use tags was to show this as a possibility, considering the size of this project it is not so necessary, but in larger projects, being able to select the tests to run can considerably reduce the time and the number of reports.

Plugin [Awesome Report] - The decision to use mochawesome reports was due to the plugin's simplicity and ease of application. Considering the size of the project it brings a good amount of information in a simple way.

User acceptance tests - Tests were done for
verify that the system meets the business requirements and user expectations outlined in the Take-Home Assignment document.

All tests in one single file - Considering that a single page would be tested and could use Tags to select possible tests, I chose to create a single file.

Commands file - The use of custom commands is considered good practice. Allows you to create commands that are repeated several times, facilitating test maintenance.

Utils file - The creation of the utils file was thinking about the maintenance of functions that could be used in tests other than BuyaHouse. It can be considered good practice.

Comments

Plugins: Tab

One of the tests that I would like to have created needed a plugin that would allow the use of the "Tab" command in cypress. This command would allow you to simulate pressing the Tab key.

At the time of creating these tests, this plugin had a pipeline problem and to avoid a possible failure I avoided adding it.