Cypress Framework Exploration

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# Main Goal

The main goal of this work is to explore Cypress framework{link} and create some web test scenarios with this framework which are focused on user experience and user interface.

For experimental use of Cypress I decided to use demo of open-source eCommerce platform called https://www.opencart.com/. Official plus demo link. In this demo website I decided to create simple test scenarios for login page, use of e-shop and use of navigation, where I found some errors in UI that are explained in next sections.

From these scenarios and also from Cypress framework I describe some of the advantages and limitations. Also, from research I will try to explain best-practices that I did not applied practically in my project and differences between Selenium and Cypress.

# Achievements

In this section I will try to explain scenarios and their achievements, that I separated in 4 parts containing scenarios of Login page, Ordering item in E-shop, Navigation and Not Found Page

## Test Scenario of Login Page

Testing of login page ended up very well as all asserts were successful, but from the view of user experience I think this login page can be slightly improved that I explain later.

When I started testing with Login page for the first, I had to check if I’m on correct subpage with correct heading information. Also, I considered that user maybe not have account, therefore login page should have link to register page.

Next, I tried to consider all possible error messages that alert user about incorrectly entered inputs and there I found out that website should use basic validation of empty inputs in frontend. Instead, developers chose to do all validations in server side and just with one exactly same alert message in different situation, that in my opinion this is lazy option, and I am considering it as not best practices.

Last after login I checked if login page redirect user to account page, which turned out successfully.

## Test Scenario of Ordering Item in E-Shop

At test of the ordering items, I found first errors, after you visit subpage with categories and after that some product that is *out-of-stock*, it should not be enabled to put this product to shopping cart. Developers did check of out-of-stock items inside shopping cart, but I think its wrong as you can’t proceed checkout before removing those items. In my opinion is better to disable adding this product to shopping cart or allow showing date of next availability so you can do checkout, but you will receive item later.

Another error is input with number of items that have possibility to add there zero or minus value, without saying any alert or warning before it. Only alert is just saying that item was successfully added to cart, it especially weird when you put there minus value and removing items. Developers should consider removing this input at all from products that don’t need inserting value. People usually buy just one computer vice versa when you are buying cables it is common that you will buy more than just one meter.

Last error is in shopping cart where you can remove item from shopping cart without any warning if you want to proceed delete. Developers should use at least lazy version and write alert with message that item was removed and put there link to reverse this state back.

## Test Scenario of Navigation

From the first moment when I used navigation, I found that navigation have weird behavior. When you click on any button from navigation you should be redirected to another subpage, but there is nothing happening. Also is weird that after click on dropdown buttons they lock their visibility. That should be working just and only with hover effect when you mouse over the button and without locking visibility.

After some examination of navigation, I tried to understand why it does not redirect, even when there is a link element with correct address and I did not find it out as I don’t see all the code before production compilation.

## Test Scenario of Not Found Page

After above scenarios I also thought it should be good to test if the website is secured with Not Found Page and it seems that it works perfectly. I tried to change slug of categories to some invalid values and it ended up in custom *category not found page*.

Next, I tried to change route to invalid and also there was custom not found page, and at last I tried totally invalid base from routes and it works fine with 404 status page.

Maybe the last option, developers should consider to use some link in 404 status page so user can return easily to homepage or back to subpage from history.

# Advantages

# Limitations

# Conclusion

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