**FINAL PROJECT**

Software Development Academy

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TesterRemoteEE11

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# Document Purpose

I studied Software Development Academy tester course, and this is my final project. Here I can show my knowledge about testing and documenting. Goal is to put learned theory into practice.

# Testing

## Testing section

I will test webpage <https://academybugs.com/find-bugs/> and Shopping Cart section there. Here is diagram about that page structure.

Diagram

Description automatically generatedTesting checklist

|  |  |
| --- | --- |
| **Test type** | **Test scenario** |
| UI design | Text, controls, and images are aligned properly |
| UI design | Text, images, controls, and frames do not run into the edges of the screen |
| UI design | Colour, shading, and gradient are consistent |
| UI design | There are no spelling errors |
| UI design | Is it possible to insert letters, symbols, and negative numbers at quantity field |
| UI design | Error messages show only if necessary |
| Function | Is it possible to add items to the cart and continue shopping |
| Function | If the user adds the same item to the shopping cart, is the item count getting incremented? |
| Function | Check if the cart displays the following numbers correct – total items, cost of each item, total price |
| Function | Is the shopping cart getting updated in real-time? Means if a user adds or removes a product is a price and item number getting updated? |
| Function | Is it possible for the user to edit the items in the cart? Delete, change the size, colour, etc? |
| Function | Is it easy for the user to apply coupons? |
| Function | Can the user check the shipping costs and review all the shipping options? |
| Function | What happens if the user closes the site without making a purchase? Do the items remain in the cart or does the user have to add the products once again? It’s highly preferred that the items remain in the cart, so the user can complete the checkout process as and when needed. |
| Function | Can you add more items to the cart than in stock |
| Device compatibility | Check same page on different devices (PC with different operating systems, tablet, mobile etc) |
| Browser compatibility | Compare same page on different browsers (Firefox, Chrome, Edge etc) |
| Performance | Check if page loads and runs smooth without any lag on normal conditions |
| Performance | Check how page runs under extreme workloads to see how it handles high traffic or data processing. |
| Usability | Can you change colour, size etc for items you added cart already |
| Security | Check cookies and session time for application |

## Detailed test cases

Here is list of test cases I made. There is possible to write a lot of more test cases if you follow checklist, but for project I did 13 in Test Rail.

### Test cases

Graphical user interface, text, application, email

Description automatically generated

Here are subsections/categories I made.

Graphical user interface, text, application

Description automatically generated

And here is example of test cases (13) I wrote, they are mostly UI design and function based.

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application

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Graphical user interface, text, application, email

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Graphical user interface, text, application

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Description automatically generated

Graphical user interface, application

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Graphical user interface, text, application

Description automatically generated Graphical user interface, application

Description automatically generated

Graphical user interface, application, Teams

Description automatically generated

### Results after running test cases

Graphical user interface, application

Description automatically generated

## Founded issues/bugs

Here are some bugs I found from webpage. They are not all linked with my written test cases. I wrote those in simple table format, but at the end is 1 example for Jira also.

### UI design

|  |  |
| --- | --- |
| Severity | Low |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Scroll down to check different images |
| Expected Result | All images are aligned and same size |
| Actual Result | Some images are different size and not aligned |
| Attachments | Graphical user interface, website  Description automatically generated |

|  |  |
| --- | --- |
| Severity | Low |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/flamingo-tshirt/> 2. Scroll down to check SIGN IN button |
| Expected Result | SIGN IN button is not overlaying footer line |
| Actual Result | SIGN IN button overlays footer line |
| Attachments |  |

|  |  |
| --- | --- |
| Severity | Medium |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. <https://academybugs.com/store/dnk-yellow-shoes/> 2. Read item description |
| Expected Result | Item description is written in English |
| Actual Result | Item description is written in Spanish |
| Attachments | Graphical user interface, application  Description automatically generated |

|  |  |
| --- | --- |
| Severity | Low |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/my-cart/> 2. Clear the cart if there are any items |
| Expected Result | The caption of the "Return to Store" button is written with even spacing between letters |
| Actual Result | There is too much space before the last letter in "Return to Store" |
| Attachments | Graphical user interface, text, application  Description automatically generated |

|  |  |
| --- | --- |
| Severity | Low |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Add one or more products to the cart 3. Click the "View cart" link on top of the page 4. Enter quantity field some symbol or letter |
| Expected Result | Quantity field can’t enter anything except numbers |
| Actual Result | You can enter symbols or letters there |
| Attachments |  |

|  |  |
| --- | --- |
| Severity | Low |
| Issue Type | Visual |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Add one or more products to the cart 3. Click the "View cart" link on top of the page 4. Enter invalid Coupon code and press apply coupon 5. Refresh page pressing F5 |
| Expected Result | Not a valid coupon code appears and after refreshing page disappears. |
| Actual Result | Not a valid coupon code appears and after refreshing page is still visible. |
| Attachments |  |

### Functional

|  |  |
| --- | --- |
| Severity | High |
| Issue Type | Functional |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Add one or more products to the cart 3. Click the "View cart" link on top of the page 4. Set the products quantity to 3 or more 5. Click "update" below |
| Expected Result | The product quantity can be increased past 2 |
| Actual Result | When clicking on the update button the product quantity becomes 2 again. |
| Attachments |  |

|  |  |
| --- | --- |
| Severity | Medium |
| Issue Type | Functional |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Open a product 3. Change the currency in the right-side menu |
| Expected Result | The currency is changed as expected |
| Actual Result | The page freezes when changing the currency |
| Attachments |  |

|  |  |
| --- | --- |
| Severity | Medium |
| Issue Type | Functional |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Open a product 3. Click the manufacturer link under the quantity |
| Expected Result | The manufacturer link shows an appropriate page |
| Actual Result | The manufacturer link opens an error page |
| Attachments |  |

|  |  |
| --- | --- |
| Severity | Critical |
| Issue Type | Functional |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Add one or more products to the cart 3. Click the "View cart" link on top of the page |
| Expected Result | The grand total is equal to the sum of all products in the cart |
| Actual Result | The grand total is $100 more than the sum of all products in the cart |
| Attachments |  |

### Crash

|  |  |
| --- | --- |
| Severity | High |
| Issue Type | Crash |
| Frequency | Every time |
| Environment | All browsers |
| Action Performed | 1. Open <https://academybugs.com/store/> 2. Click on the buttons to show a certain number of results at the top left |
| Expected Result | The selected number of results is displayed according to the clicked buttons |
| Actual Result | The page freezes when clicking on the numbers of results |
| Attachments | Graphical user interface, text, application, chat or text message  Description automatically generated |

Here is example bug report I did in Jira:

Graphical user interface, text, application, email

Description automatically generated

## Improvements

1) You can add items to cart at store page without opening product page. But item count and colour can change only if opening cart or product page. They should add possibility to select colour and quantity right at store page also.

2) There are some items at store that need you to sign in to see price, there is no point for that and should see all prices right away.

3) At product page item where you can select colour, the picture colour should change automatically when you change colour, but for picture change there is different button and this is not convenient.

4) There are some random lines everywhere, that is not pretty and should remove those. For example: 

A picture containing graphical user interface

Description automatically generated A picture containing logo

Description automatically generated A picture containing background pattern

Description automatically generated

5) Some products it shows how many items are still in stock, but when you change item size, it always shows same number. There are not sorted how many XS are left in stock, how many XL are left in stock etc, but it should be like that.

Graphical user interface, text, application, chat or text message

Description automatically generated

## Test Design Techniques

Boundary values analysis – to check if there for example 50 items still on stock is it possible to add certain number to cart: (0 and 51) – invalid; (1 and 50) – valid. It’s quite easy technique and can check easily if some field accept valid data and denies invalid data.

Error guessing – to check if you can enter symbols or and negative values to fields that should be denied. It helps to find some bugs quicker if you have some experience already.

Exploratory testing – to check spelling, visuals and etc at website. For my opinion you can’t write test case for everything (this takes too much time) and this helps to find some bugs quicker.

Checklist-based Testing – I made testing checklist and wrote test cases and followed those. Its structured way and then you can be sure you don’t miss anything important.

## Reflection

When I started this project, I thought it is hard and I almost don’t know anything and need a lot of practice. When I started working it did not seem that hard anymore and I got a lot of confidence. If I don’t remember anything by heart its always possible to google it. Manual testing is not so hard and write test cases and execute those is not difficult (at least for some easier application, website etc). On the other hand, I wrote testing checklist some categories like performance and security also, but I have like no idea how to really test those areas well. Automated testing with Selenium IDE seemed quite easy but writing code for automated testing need a lot of learning. Test Rail and Jira are quite easy to use and I know some stuff what to do with Postman, but need some ideas how to use it for testing. To sum it all up I need a lot of practice and experience to use different kind of techniques and tools.