Testing Luma Demo Website

SDA Final Project
Sander Truu
2023 November

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Purpose of the Project

The purpose of this project is to use the skills and knowledge gained from the SDA Software Tester course to demonstrate my testing skills on the website https://magento.softwaretestingboard.com/.

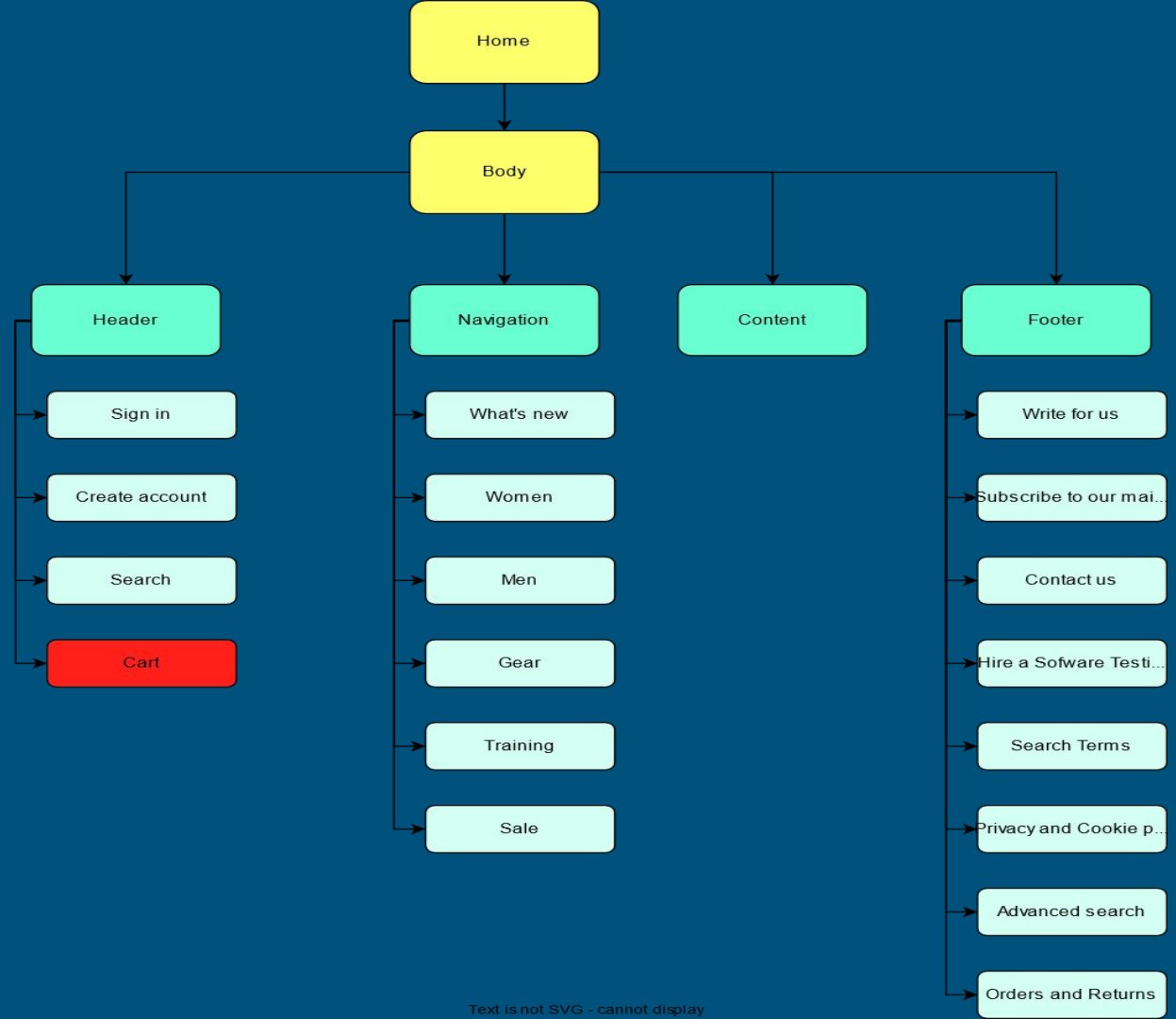
The provided web page is a demo page for learning and putting your testing skills to the test. It is a sample eCommerce page which imitates an online store that sells sporting clothing and gear for men and women.

The main goals of this project are:

- Identifying and writing down possible functionality and usability related test cases
- Executing the tests in order to find bugs and check the correctness of the site
- To revise and demonstrate knowledge related to testing

Testing Section

The following diagram demonstrates the structure of the site. Landing on the home page, we have the Body which contains all the page contents. Then we have the Header, which contains account related operations, the search bar, and the functionality to be tested – shopping cart (Highlighted in red). In addition, we have the Navigation bar and footer with some sub contents and then the actual content of the loaded page which we do not investigate in detail.



Text is not SVG - cannot display

Shopping cart Testing Checklist

Test Cases

Sort: Section | Filter: None

Cart functionality 27

Testing the functionality of the shopping cart on https://magento.softwaretestingboard.com/

ID	Title
C1	Check adding product to the cart
C2	Check adding product without size to the cart
C3	Check adding product without colour to the cart
C4	Check adding product with negative quantity to the cart
C5	Check editing quantity of the product in cart
C6	Check updating the quantity to negative in cart
C7	Check deleting the product from cart
C8	Check editing the product properties from the cart
C9	Check update shopping cart functionality
C10	Check applying invalid discount code
C11	Check applying empty discount code
C12	Check adding item to cart from more choices
C13	Check "Proceed to checkout" functionality
C14	Check estimating delivery fee 0 dollars
C15	Check estimating delivery fee 10 dollars
C16	Check shipping with all fields filled
C17	Check shipping without e-mail address
C18	Check shipping with any empty fields
C19	Check shipping with first name containing illegal characters
C20	Check shipping with last name containing illegal characters
C21	Check shipping with street address containing illegal characters
C22	Check shipping with zip code containing letters
C23	Check shipping with phone number containing letters
C24	Check next button functionality on shipping page
C25	Check user information on Review & Payments page
C26	Check billing and shipping address checkbox functionality
C27	Check place order button functionality

Add Case | Add Subsection

Security 1

Check if the site https://magento.softwaretestingboard.com/ is secure

ID	Title
C28	Check if the site is using secure http protocol

Add Case | Add Subsection

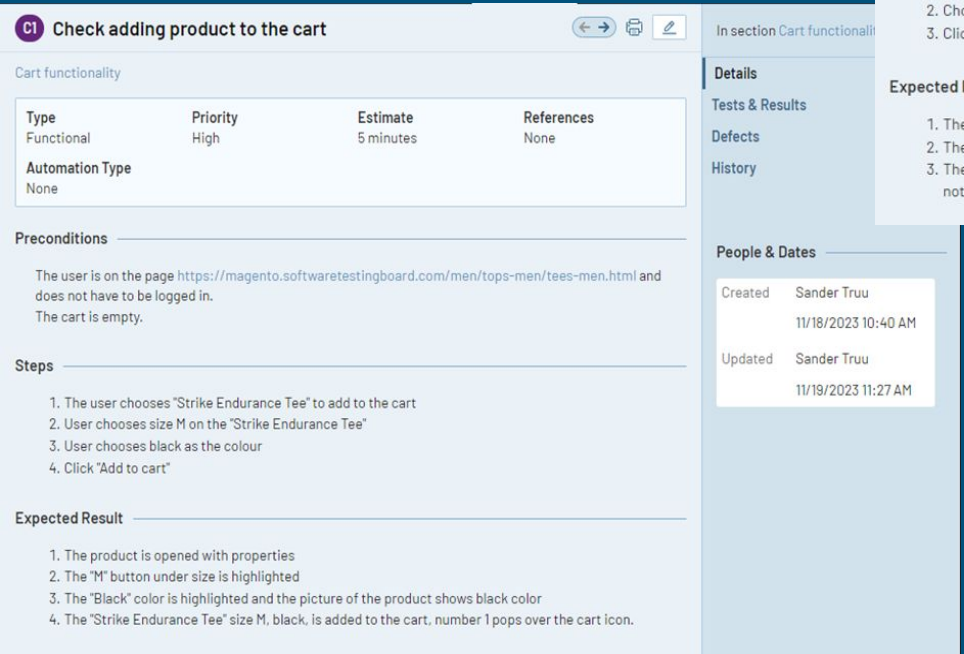
Usability 3

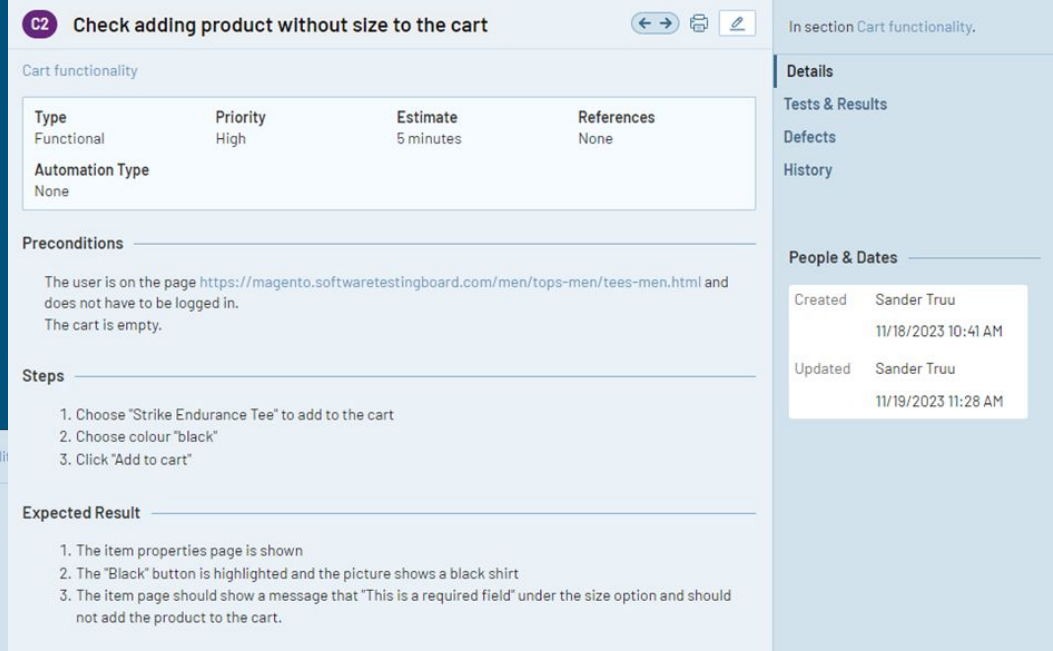
User experience and interface testing on the site https://magento.softwaretestingboard.com

ID	Title
C29	Check if it is understandable how many items are in the cart while shopping
C30	Check if the colours of the items are changed on the image when choosing a colour
C31	Check if cart contents are understandable

Test Cases

Functional





C3 Check adding product without colour to the cart

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart is empty.

Steps

1. Choose "Strike Endurance Tee" to add to the cart
2. Choose "L" as size
3. Click "Add to Cart"

Expected Result

1. The item properties page is shown
2. The "L" button is highlighted
3. The message "This is a required field." should be shown under the color choosing field and the product should not be added to the cart.

In section Cart functionality.

Details
Tests & Results
Defects
History

People & Dates

Created	Sander Truu
	11/18/2023 10:42 AM
Updated	

C4 Check adding product with negative quantity to the cart

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart is empty.

Steps

1. Choose "Strike Endurance Tee" to add to the cart
2. Choose size "M"
3. Choose color "Blue"
4. Change "Qty" field to -1
5. Click "Add to Cart"

Expected Result

1. The item properties page is shown
2. The button "M" is highlighted
3. The color "Blue" is highlighted and picture shows a blue T-shirt
4. The quantity field has value -1
5. The message "Please enter a quantity greater than 0." should be shown and the feld should turn red. The item is not added to the cart.

In section Cart functionality.

Details
Tests & Results
Defects
History

People & Dates

Created	Sander Truu
	11/18/2023 10:42 AM
Updated	Sander Truu
	11/19/2023 11:29 AM

C6 **Check updating the quantity to negative in cart**

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Open the cart from the cart icon
2. Change quantity to -1

Expected Result

1. The dropdown menu with the contents of the cart appears
2. The "Update" button should not appear and the quantity is not changed

In section Cart functionality.

Details
Tests & Results
Defects
History

People & Dates

Created	Sander Truu
	11/18/2023 10:44 AM
Updated	Sander Truu
	11/19/2023 11:30 AM

C5 **Check editing quantity of the product in cart**

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item.

Steps

1. Open the cart from the icon
2. Change quantity to 3
3. Click "Update"

Expected Result

1. A dropdown menu appears with the contents of the cart
2. The "Update" button appears next to the text field
3. The quantity is saved as "3", cart shows a small "3" over the icon and the subtotal is tripled.

In section Cart func

Details
Tests & Results
Defects
History

People & Dates

Created	Sander Truu
	11/18/2023 10:43 AM
Updated	Sander Truu
	11/19/2023 11:30 AM

C7 Check deleting the product from cart

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Open the cart from the icon
2. Click on the thrash can icon "Remove item"
3. Click "Ok" on the pop up message.

Expected Result

1. The dropdown menu with the contents of the cart appears
2. A confirmation message appears
3. The item is removed from the cart. The cart icon stays opened and message "You have no items in your shopping cart." is shown.

In section Cart functionality.

- Details
- Tests & Results
- Defects
- History

People & Dates

Created	Sander Truu
	11/18/2023 10:44 AM
Updated	Sander Truu
	11/19/2023

C8 Check editing the product properties from the cart

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee, size M, black colour.

Steps

1. Open the cart from the icon
2. Click "View and edit cart"
3. Click pencil icon "Edit properties"
4. Change colour to "Blue"
5. Change size to "L"
6. Click "Update cart"

Expected Result

1. The dropdown menu with the contents of the cart appears
2. A page with the contents of the cart loads
3. The user is redirected to the product page with properties
4. The "Blue" button is highlighted and picture shows blue shirt
5. The "L" button is highlighted
6. The user is redirected back to cart view. Message "Strike Endurance Tee was updated in your shopping cart." is shown and the item size is changed to "L" and color to "Black".

In section Cart functionality.

- Details
- Tests & Results
- Defects
- History

People & Dates

Created	Sander Truu
	11/18/2023 10:44 AM
Updated	Sander Truu
	11/19/2023 11:32 AM

C10 Check applying invalid discount code

Cart functionality

Type	Priority	Estimate	References
Functional	Medium	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Click on the cart icon
2. Click "View and edit cart"
3. Click on "Apply Discount Code"
4. Enter "DISCOUNT" in the text field
5. Click "Apply Discount"

Expected Result

1. The dropdown menu with the contents of the cart is shown
2. The page with the contents of the cart is shown
3. A text field appears with the "Apply Discount" button
4. Text field has value "DISCOUNT"
5. The user should get a error message "The coupon code "DISCOUNT" is not valid." and the price of the cart remains the same.

In section Cart funct

Details
Tests & Results
Defects
History

People & Dates

Created Sander
11/18/20

Updated Sander Truu
11/19/2023 11:33 AM

C11 Check applying empty discount code

Cart functionality

Type	Priority	Estimate	References
Functional	Medium	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Click on the cart icon
2. Click on "View and Edit cart"
3. Click on "Apply Discount Code"
4. Leave the text field empty
5. Click "Apply Discount"

Expected Result

1. The dropdown menu with the contents of the cart is shown
2. The user is directed to the page with the cart contents
3. The text field and "Apply Discount" button appears
4. Text field is empty
5. After button click the user should still stay on the same page without page refresh. A message under the text field is shown "This is a required field." and the field is highlighted.

In section Cart functionality.

Details
Tests & Results
Defects
History

People & Dates

Created Sander Truu
11/18/2023 11:24 AM

Updated Sander Truu
11/19/2023 11:34 AM

C12 Check adding item to cart from more choices

Cart functionality

Successfully updated the test case.

Type	Priority	Estimate	References
Functional	Medium	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Click on the cart icon
2. Click "View and Edit cart"
3. Add first item from the "More Choices:" list to the cart

Expected Result

1. The dropdown menu with the contents of the cart is shown
2. The user is redirected to the page with the cart contents
3. The user stays on the cart page (page is refreshed) and the new item is shown in the list. The total sum has grown by the price of the added item.

In section Cart functionality.

Details
Tests & Results
Defects
History

People & Dates

Created	Sander Truu
	11/18/2023 11:25 AM
Updated	Sander Truu
	11/19/2023 11:38 AM

C13 Check "Proceed to checkout" functionality

Cart functionality

Type	Priority	Estimate	References
Functional	High	5 minutes	None

Automation Type
None

Preconditions

The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html and does not have to be logged in.
The cart has 1 item Strike Endurance Tee.

Steps

1. Click on the cart icon
2. Click on "Proceed to Checkout"

Expected Result

1. The dropdown menu with the contents of the cart appears
2. The user is redirected to the checkout and is shown the shipping address form. Order consists of 1 item.

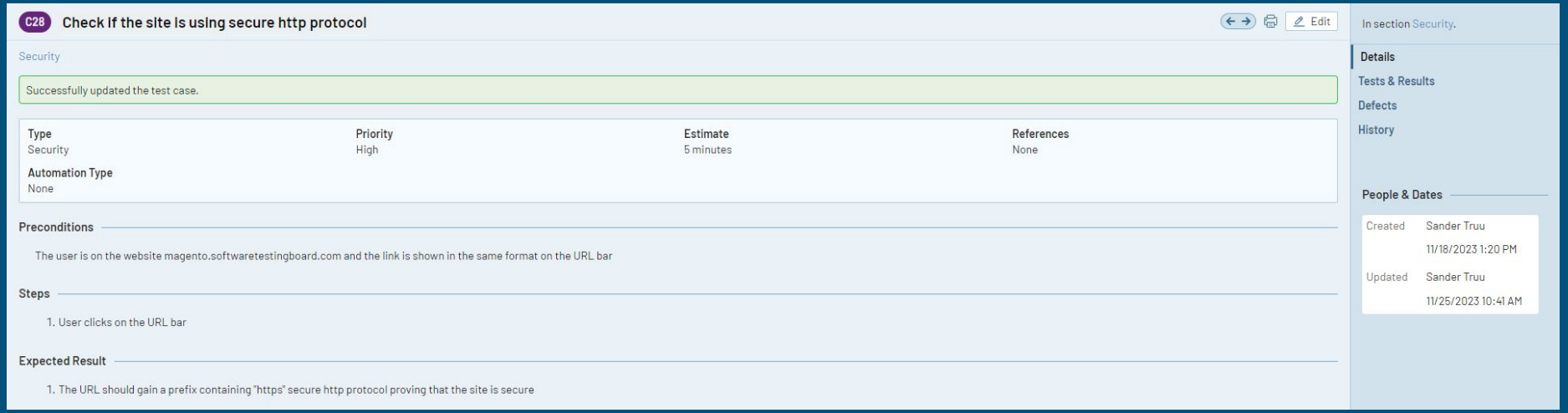
In section Cart functionality.

Details
Tests & Results
Defects
History

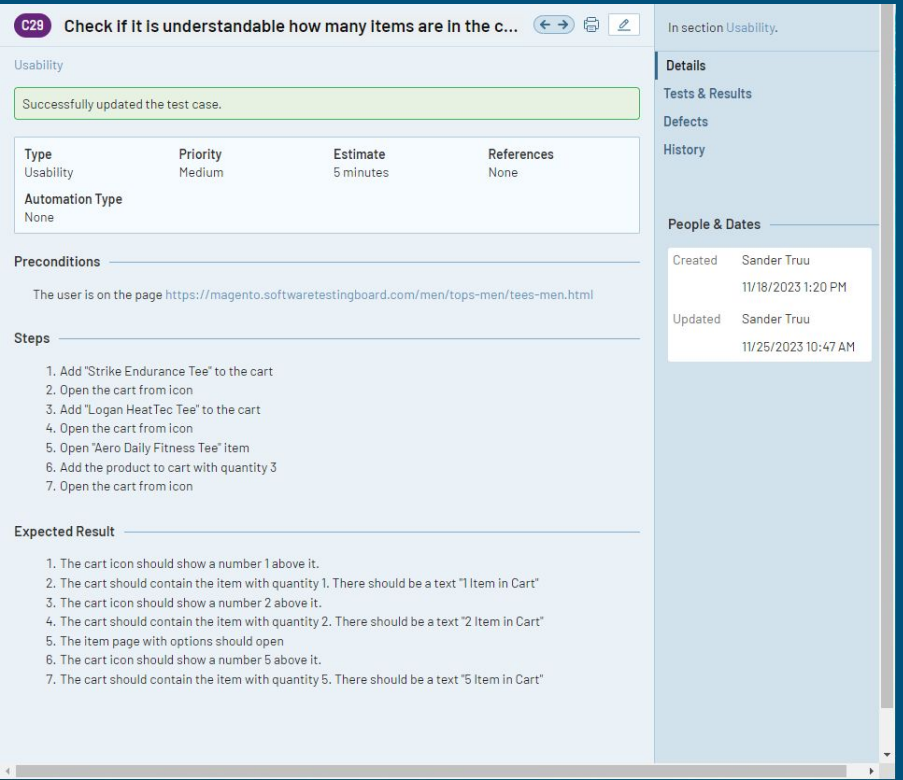
People & Dates

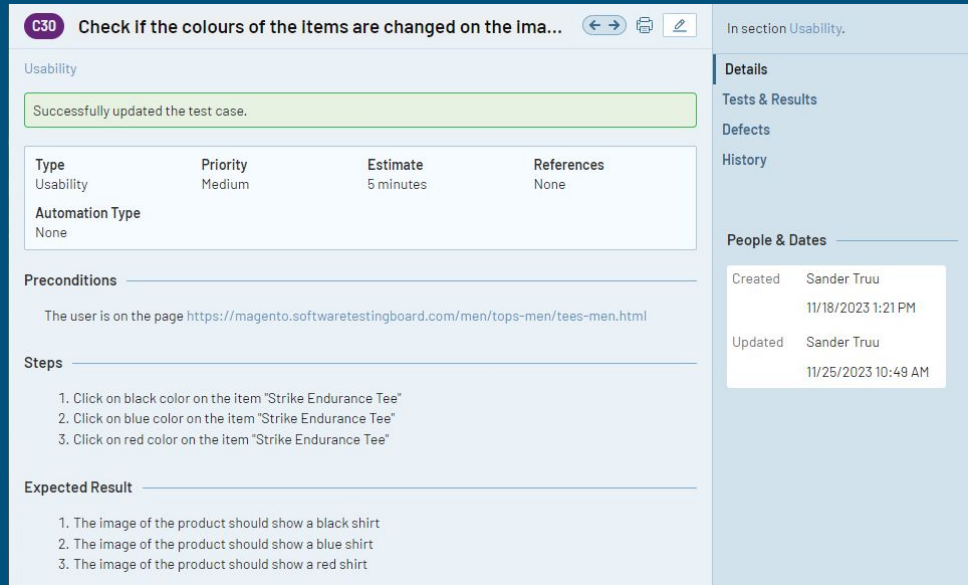
Created	Sander Truu
	11/18/2023 11:25 AM
Updated	Sander Truu
	11/19/2023 11:35 AM

Security


C28
Check If the site is using secure http protocol
Edit
Security
Successfully updated the test case.
Type
Security
Priority
High
Estimate
5 minutes
References
None
Automation Type
None
Preconditions
The user is on the website magento.softwaretestingboard.com and the link is shown in the same format on the URL bar
Steps
1. User clicks on the URL bar
Expected Result
1. The URL should gain a prefix containing "https" secure http protocol proving that the site is secure
In section Security.
Details
Tests & Results
Defects
History
People & Dates
Created
Sander Truu
11/18/2023 1:20 PM
Updated
Sander Truu
11/25/2023 10:41 AM

Usability


C29
Check If it is understandable how many items are in the c...
Usability
Successfully updated the test case.
Type
Usability
Priority
Medium
Estimate
5 minutes
References
None
Automation Type
None
Preconditions
The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html
Steps
1. Add "Strike Endurance Tee" to the cart
2. Open the cart from icon
3. Add "Logan HeatTec Tee" to the cart
4. Open the cart from icon
5. Open "Aero Daily Fitness Tee" item
6. Add the product to cart with quantity 3
7. Open the cart from icon
Expected Result
1. The cart icon should show a number 1 above it.
2. The cart should contain the item with quantity 1. There should be a text "1 Item in Cart"
3. The cart icon should show a number 2 above it.
4. The cart should contain the item with quantity 2. There should be a text "2 Item in Cart"
5. The item page with options should open
6. The cart icon should show a number 5 above it.
7. The cart should contain the item with quantity 5. There should be a text "5 Item in Cart"
In section Usability.
Details
Tests & Results
Defects
History
People & Dates
Created
Sander Truu
11/18/2023 1:20 PM
Updated
Sander Truu
11/25/2023 10:47 AM


C30
Check If the colours of the items are changed on the ima...
Usability
Successfully updated the test case.
Type
Usability
Priority
Medium
Estimate
5 minutes
References
None
Automation Type
None
Preconditions
The user is on the page https://magento.softwaretestingboard.com/men/tops-men/tees-men.html
Steps
1. Click on black color on the item "Strike Endurance Tee"
2. Click on blue color on the item "Strike Endurance Tee"
3. Click on red color on the item "Strike Endurance Tee"
Expected Result
1. The image of the product should show a black shirt
2. The image of the product should show a blue shirt
3. The image of the product should show a red shirt
In section Usability.
Details
Tests & Results
Defects
History
People & Dates
Created
Sander Truu
11/18/2023 1:21 PM
Updated
Sander Truu
11/25/2023 10:49 AM

BDD Scenarios

Test cases shown before were also written in BDD format using IntelliJ and Cucumber. The scenarios were then used to generate automated tests and then I filled some of the tests with code to demonstrate automatic testing of the website.

SDAFinalProjectLuma | main | Current File

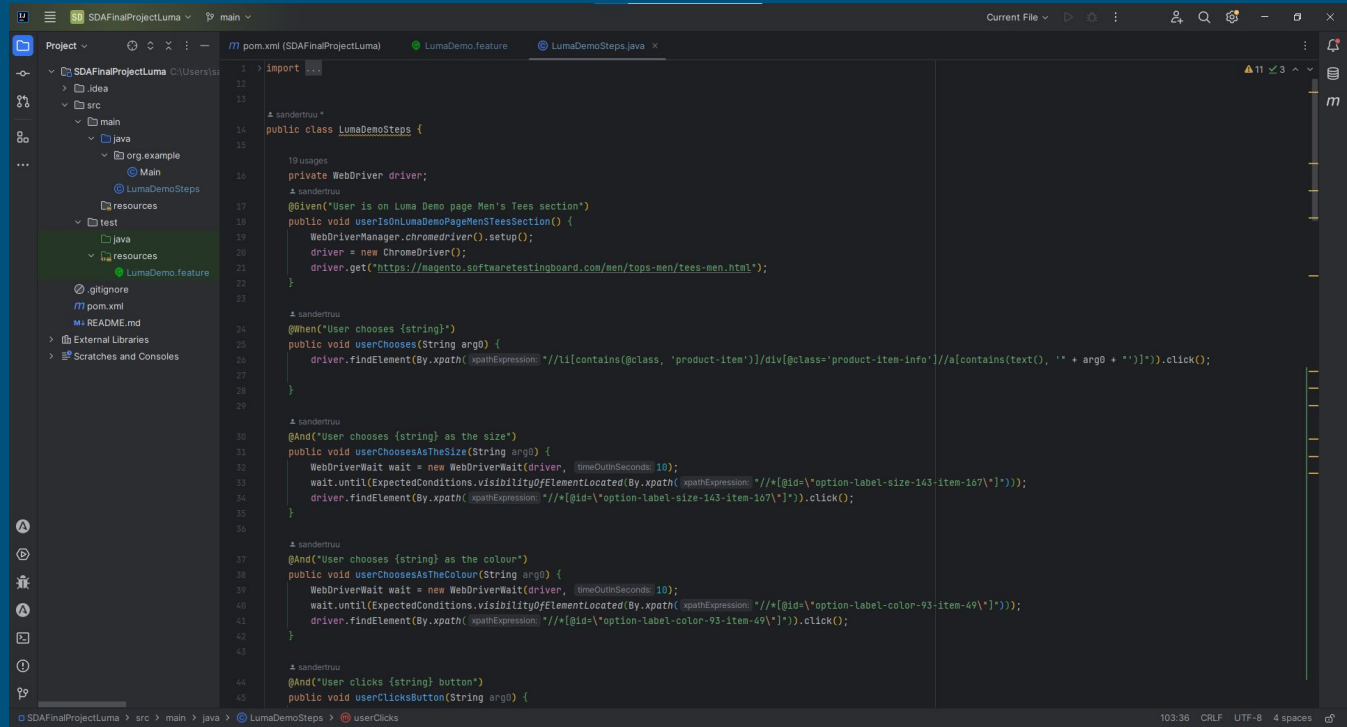
pom.xml (SDAFinalProjectLuma) | LumaDemo.feature | LumaDemoSteps.java

```
Feature: Shopping Cart
  Tests related to the functionality of the shopping cart
  on page https://magento.softwaretestingboard.com/

  Scenario: Add product to cart
    Given User is on Luma Demo page Men's Tees section
    When User chooses "Strike Endurance Tee"
    And User chooses "S" as the size
    And User chooses "Black" as the colour
    And User clicks "Add to cart" button
    Then Black S size tee is added to the cart
    And Small "1" appears over the cart icon

  Scenario: Add product without size to the cart
    Given User is on Luma Demo page Men's Tees section
    When User chooses "Strike Endurance Tee"
    And User chooses "Black" as the colour
    And User clicks "Add to cart" button
    Then Product is not added to the cart
    And Message is shown under size menu

  Scenario: Add product without colour to the cart
    Given User is on Luma Demo page Men's Tees section
    When User chooses "Strike Endurance Tee"
    And User chooses "S" as the size
    And User clicks "Add to cart" button
    Then Product is not added to the cart
    And Message is shown under colour menu

  Scenario: Check adding product with negative quantity to the cart
    Given User is on Luma Demo page Men's Tees section
    When User chooses "Strike Endurance Tee"
    And User chooses "S" as the size
    And User chooses "Black" as the colour
    And User changes quantity to -1
    And User clicks "Add to cart" button
    Then Product is not added to the cart
    And A message is shown "Please enter a quantity greater than 0"
```

```
  Scenario: Check editing quantity of the product in cart
    Given User is on Luma Demo page Men's Tees section with 1 item in cart
    When User opens the cart from the icon
    And User changes quantity from icon to 3
    And User clicks Update button
    Then The quantity is saved as "3"
    And Subtotal is tripled

  Scenario: Check editing quantity to negative in cart
    Given User is on Luma Demo page Men's Tees section with 1 item in cart
    When User opens the cart from the icon
    And User changes quantity from icon to -1
    Then Update button is not visible

  Scenario: Check deleting the product from cart
    Given User is on Luma Demo page Men's Tees section with 1 item in cart
    When User opens the cart from the icon
    And User clicks the thrash can button
    And User clicks OK on the pop up
    Then Item is removed from the cart

  Scenario: Check editing the product properties from the cart
    Given User is on Luma Demo page Men's Tees section with 1 item in cart
    When User opens the cart from the icon
    And User clicks View and edit cart button
    And User clicks the pencil icon
    And User changes colour to blue
    And User changes size to L
    And User clicks Update cart
    Then A message is shown
    And Properties are updated
```

Automated Tests

- Tests were generated from the Scenarios shown before. Tests are written using Java programming language and Selenium Webdriver mainly.



SDAFinalProjectLuma main Current File

Project

- SDAFinalProjectLuma C:\Users\sa
  - .idea
  - src
    - main
      - java
        - org.example
          - Main
        - LumaDemoSteps
      - resources
    - test
      - java
      - resources
        - LumaDemo.feature
  - .gitignore
  - pom.xml
  - README.md
- External Libraries
- Scratches and Consoles

pom.xml (SDAFinalProjectLuma) | LumaDemo.feature | LumaDemoSteps.java

```
45      public void userClicksButton(String arg0) {
46          driver.findElement(By.id("product-addtocart-button")).click();
47
48      }
49
        sandertruu
50      @Then("Black S size tee is added to the cart")
51      public void blackMSizeTeeIsAddedToTheCart() {
52          WebDriverWait wait = new WebDriverWait(driver, timeOutInSeconds: 10);
53          wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"maincontent\"]/div[1]/div[2]/div")));
54
55          driver.findElement(By.xpath( xpathExpression: "/html/body/div[2]/header/div[2]/div[1]/a")).click();
56          Assert.assertNotNull(driver.findElement(By.xpath( xpathExpression: "//*[@id=\"mini-cart\"]")));
57      }
58
        sandertruu
59      @And("Small {string} appears over the cart icon")
60      public void smallAppearsOverTheCartIcon(String arg0) {
61          Assert.assertNotNull(driver.findElement(By.xpath( xpathExpression: "/html/body/div[2]/header/div[2]/div[1]/a/span[2]")));
62          driver.close();
63      }
64
        sandertruu
65      @Then("Product is not added to the cart")
66      public void productIsNotAddedToTheCart() {
67          driver.findElement(By.xpath( xpathExpression: "/html/body/div[2]/header/div[2]/div[1]/a")).click();
68          Assert.assertNotNull(driver.findElement(By.xpath( xpathExpression: "//*[@id=\"minicart-content-wrapper\"]/div[2]/strong")));
69      }
70
        sandertruu
71      @And("Message is shown under size menu")
72      public void messageIsShown() {
73          Assert.assertNotNull(driver.findElement(By.xpath( xpathExpression: "//*[@id=\"super_attribute[143]-error\"]")));
74          driver.close();
75      }
76
        sandertruu
77      @And("Message is shown under colour menu")
78      public void messageIsShownUnderColourMenu() {
79          Assert.assertNotNull(driver.findElement(By.xpath( xpathExpression: "//*[@id=\"super_attribute[93]-error\"]")));
80          driver.close();
81      }
```

11 3

SDAFinalProjectLuma > src > main > java > LumaDemoSteps > userClicks

103:36 CRLF UTF-8 4 spaces

Bug Reports

From the website, I managed to find 2 bugs that were not directly related to my test cases. One of them was related to the stock of items and other one was related to the review functionality.

Projects / SDA_TESTING / Add epic / ST-2

Shop item view does not show "Out of stock" for out of stock items

Attach | Add a child issue | Link issue | ...

Environment

Google Chrome Version 119.0.6045.160 (Official Build) (64-bit)

Windows 10

Priority High

Description

Steps to reproduce:

1. Open Tees - Tops - Men
2. Choose "Strike Endurance Tee"
3. Choose size M
4. Choose color Black

Expected Result

The item information says this item is out of stock

Actual Result

The item with these options is still shown as "in stock"

Attachments (1)

image-20231125... 802.png

Projects / SDA_TESTING / Add epic / ST-3

Review is not published after filling the review form

Attach | Add a child issue | Link issue | ...

Environment

Google Chrome Version 119.0.6045.160 (Official Build) (64-bit)

Windows 10

Priority High

Description

Steps to reproduce:

1. Go to Tees - Tops - Men
2. Choose "Strike Endurance Tee"
3. Click "Reviews"
4. Choose any amount of stars
5. Fill in the nickname field with "testing"
6. Fill in the summary field with "test"
7. Fill in the description field with "test"
8. Click "Submit Review"

Expected Result:

The review is published under the product amongst other reviews

Actual Result:

The review is not posted

Improvements

Starting with the UI, there is not much to suggest since the UI is quite understandable. Maybe there is a little bit too many options to manipulate the cart which could cause the user to get confused, operate more slowly and so on so I would suggest making the cart manipulation simple and clear.

In addition, also as a functionality aspect, the page should clearly state when a product is out of stock. Since you can add a product with a set of parameters to the cart before realizing that the product is out of stock, it should notify the user before trying to add it to the cart. It would make the process smoother and convenient for the user

The filter menu is good overall but could be improved. It is shown at all times but it should be toggleable. In addition I would suggest changing the filters to use a checkbox for example instead of filtering by a parameter and having options “YES” and “NO”. This is not so beautiful and the checkbox system would be, in my opinion, more relatable for the user and easier to use.

Regarding the wish list sharing, it lacks the control of the emails. The emails just have to match the format of x@y.z and you can write anything there. There should be a check for valid emails and maybe it should let the user know, whether this email has registered or not.

Testing techniques

In this project I mostly used experience-based techniques but I combined some automated testing as well. The test cases were formed using TestRail. Automation was done using IntelliJ, Java, Cucumber and Selenium Webdriver

All the test cases, that were formed, passed successfully. There were minor UI issues and I managed to detect 2 functionality issues as well and report them using Jira.

The main techniques used were:

- Exploratory testing
  - I tried to identify usability issues
  - I explored the website without any preconceived notions or test scripts
- Error guessing
  - I tried to find issues and defects based on my past experience and intuition, and I focused on functionalities that could likely have any issues

- Checklist based testing
  - After exploring the page a checklist was formed which was the base for the possible test cases
- Automated testing
  - This was done after exploring the page in order to show automation skills. The tests follow the provided test cases and are based on the BDD Scenarios

Summary

This project focused on testing a eCommerce website https://magento.softwaretestingboard.com/. The project mostly focused on experience based techniques like exploratory testing and error guessing but also some tests were automated using IntelliJ, Java, Cucumber and Selenium Webdriver.

This project was a demonstration of skills learned during the SDAcademy Software Tester course. It was a good chance to revise and show my knowledge and use a demo page to do the testing.