

INF3121 Project Assignment 2:

Testing and test automation

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Requirement 1 - Manual tests, test design, bugs

User account - Decision table						
Conditions	New user	Yes	Yes	No	No	No
	Valid Username	Yes	Yes	Yes	Yes	Yes
	Valid Password	Yes	No	Yes	No	-
	Reset Password	-	-	-	-	Yes
Action	Create Account	✓	✗	✗	✗	✗
	Failed Account Creation(Error message displayed)	✗	✓	✗	✗	✗
	Failed log-in(Error message displayed)	✗	✗	✗	✓	✗
	Login Successful	✓	✗	✓	✗	✗
	Password Reset(Email sent for reset)	✗	✗	✗	✗	✓

Test 1: Create new account

Description: The purpose of this test is to see if a new account is created successfully. This test assumes the user provides correct information for a successful scenario.

Pre-conditions: None

Steps:

1. User enters the e-commerce website.
2. User presses the sign-in button at the top left
3. User inputs valid information for registration. (email, password, adresss etc)
4. User confirms everything with register button.

Expected results:

- The system creates and adds the user to the database.
- The user is authenticated.

Final results:

- The user successfully logs in

Test 2: Reset password

Description: The purpose of this test is to check the reset password functionality. The test assumes the user provides the correct information for a successful scenario.

Pre-conditions: Have an account

Steps:

1. User enters the e-commerce website.
2. User presses the sign-in button at the top left
3. User presses “Forgot your password?” below input of password
4. User inputs a valid registered e-mail
5. User is successfully sent a mail to reset password

Expected results:

- The system generates a new randomized password
- The system sends out a mail with the new password

Final results:

- The system displays a message of a successful password reset and details on finishing the procedure.

Test 3: Log out

Description: The purpose of this test is to check the log out functionality. The test assumes the user is logged in and has yet to time out due to inactivity.

Pre-conditions: Logged in with an account

Steps:

1. User presses log out button
2. User presses “My account” to confirm successfully logged out

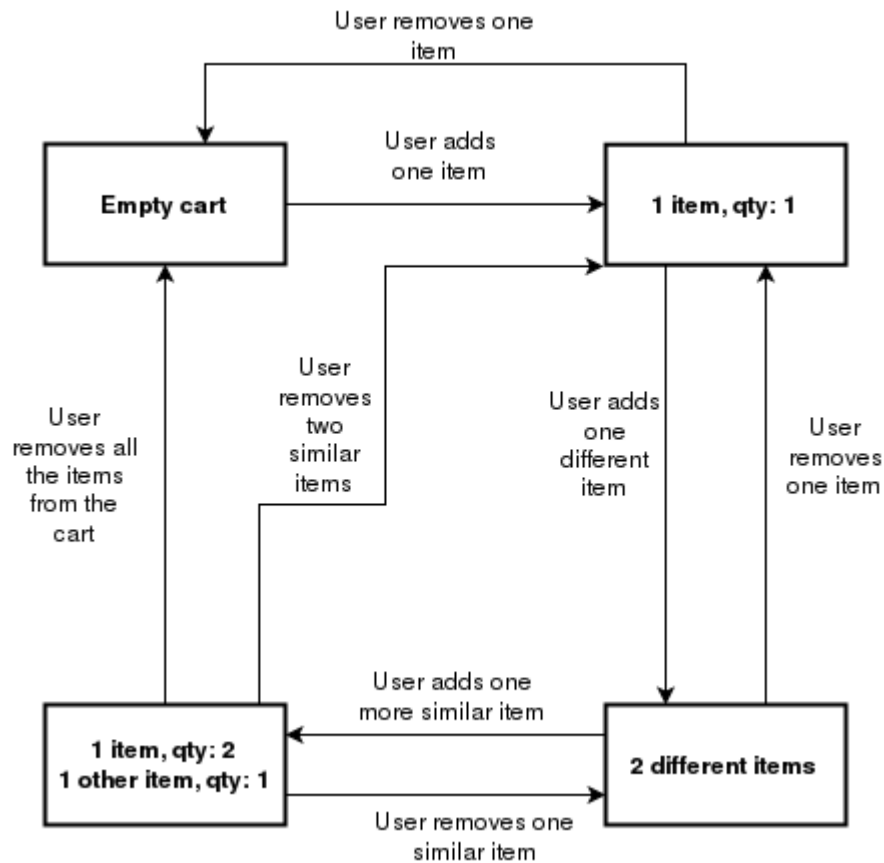
Expected results:

- The system deletes personal information from cache

Final results:

- User is successfully logged out

State-transition testing



Test 1: Add item to cart

Description: The purpose of the test is to check if the add items to cart functionality works as expected, by adding one item to an empty cart.

Pre-conditions: Empty cart

Steps:

1. User adds one item to the cart.

Expected results:

- The amount of items and the price is updated correctly in the shopping cart.

Final Results:

- User stays on page with a update cart

Test 2: Change number of items

Description: The purpose of this test is to check if a user can change the number of items in the shopping cart.

Pre-conditions: There are already two different items in the shopping cart.

Steps:

1. The user clicks view cart.
2. The user clicks the remove button on one item (The cross)
3. The user clicks on the qty boxes for a dropdown and change to qty 3.

Expected Results:

- The amount of items and the price is updated correctly in the shopping cart.

Final results:

- The price and number of items is updated
- The user is still logged in

Checkout – Decision table					
Conditions	Items in cart	Yes	No	Yes	No
	Logged in	Yes	Yes	No	No
Actions	Checkout available	✓	✗	✓	✗
	Auto-fill personal information	✓	✓	✗	✗
	View cart contents (price/qty)	✓	✗	✓	✗
	Finalize order	✓	✗	✓	✗

Test 1: Checkout with items

Description: Test to see if it is possible to check out when logged in. The test also assumes the account provided has the correct information to make a successful scenario.

Pre-conditions: Items in cart
Logged in

Steps:

1. User hovers the mouse over the cart icon
1a. Alternatively the user clicks on checkout
2. Users information is automatically filled
3. User confirms correct information is given

4. User choses a shipping method

Expected Results: Sent to the finalized order page.

Final Results: User is sent to the finalzing order page.

Test 2: Continue Shopping

Description: Test to see if it is possible to go back to shopping after going to checkout.

Pre-conditions: Items in cart

Steps:

1. User goes to checkout page through the checkout button.
2. User presses the “Continue shopping” button

Expected results:

- The cart remains the same as when it was during the checkout

Final results:

- User is redirected to the frontpage

Test 3: Finalize order

Description: The purpose of this test is to check if the user can place an order and the store will finalize and confirm the order.

Pre conditions: There are already one or more items in the shopping cart and the checkout has already been done succesfully(test 1).

Steps:

1. Click place order.

Expected results:

- The online store confirms and finalizes order successfully.

Final results:

- User is sendt to a successful order page with overviw of the order

ISSUE REPORT:

Date: 02.05.16

Project: PA2

Programmer: n/a

Tester: Daniel Folgerø

Program/Module: Google chrome

Build/Revision/Release Version 49.0.2623.112 m

Software Enviroment: Windows 10

Hardware Enviroment: n/a

Status of the incident: Reported

Number of Occurrences: Reproducible Severity: High Impact: High Priority: High

Detailed Description: Adding a high amount of items to the cart at a time will result in the following error message: `Server connection timeout. Please, try again later.` Refreshing the page or navigating to the front page will update the shopping cart correctly.

This error is not 100% reproducible, it depends on what item and the quantity, but it happens often and on multiple pcs. We believe the errors are related to high server load.

Expected result / Actual result: Expected that the shopping cart is updated and a confirmation message appears. Actual result: `Server connection timeout.`

Change history: n/a

References (including the identity of the test case specification that revealed the problem) :

Test case that revealed the problem: select products

Assigned To: n/a

Incident Resolution: n/a

Requirement 2 & 3 - Automated tests and grouping, Transitioning manual to Automated tests

Github link: <https://github.com/kenvuo/INF3121/tree/master/oblig2>

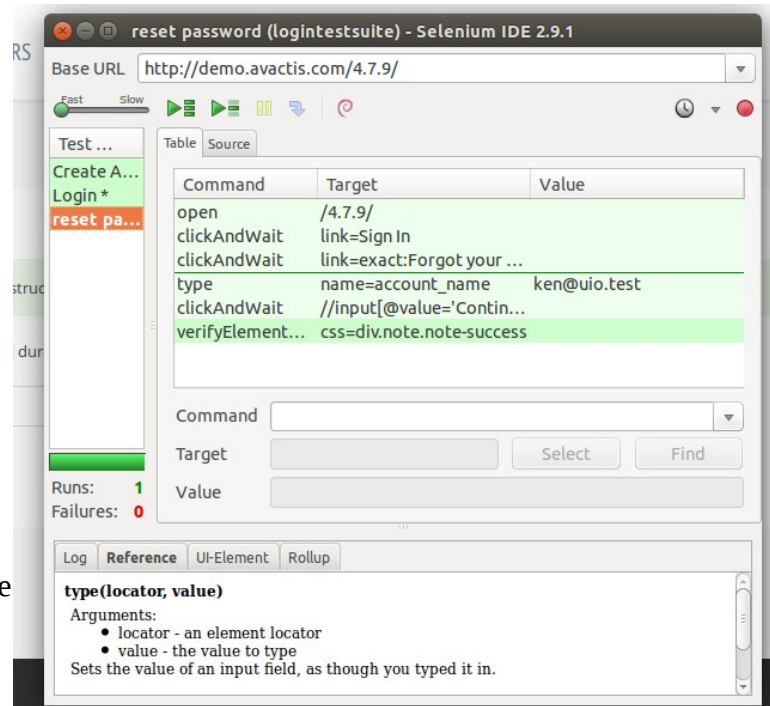
User Account

Automated tests and grouping

The Create Account test has to be the first to run since the following two tests use the account that was created. The Login and Reset-Password tests may be executed in any order.

Transitioning manual to automated tests

The User Account tests are partially automated. For both Login-test and Reset Password-test to properly function, requires the user to manually log out of their current logged in user between each test. The automated test doesn't log the user out after each. The automated test doesn't test logout, however both the Create Account and Login-test looks for a sign-out button for the test to be successful.



	Manual	Automated	Description
Test 1: Create Account	✓	✓	Both successfully logs in
Test 2: Logout	✓	✗	Logout isn't implemented in the automated test
Test 3: Reset Password	✓	✓	Both displays a successful reset password
Test 4: Login	✗	✓	Login isn't implemented in the manual test
Are all test covered?	Partially		

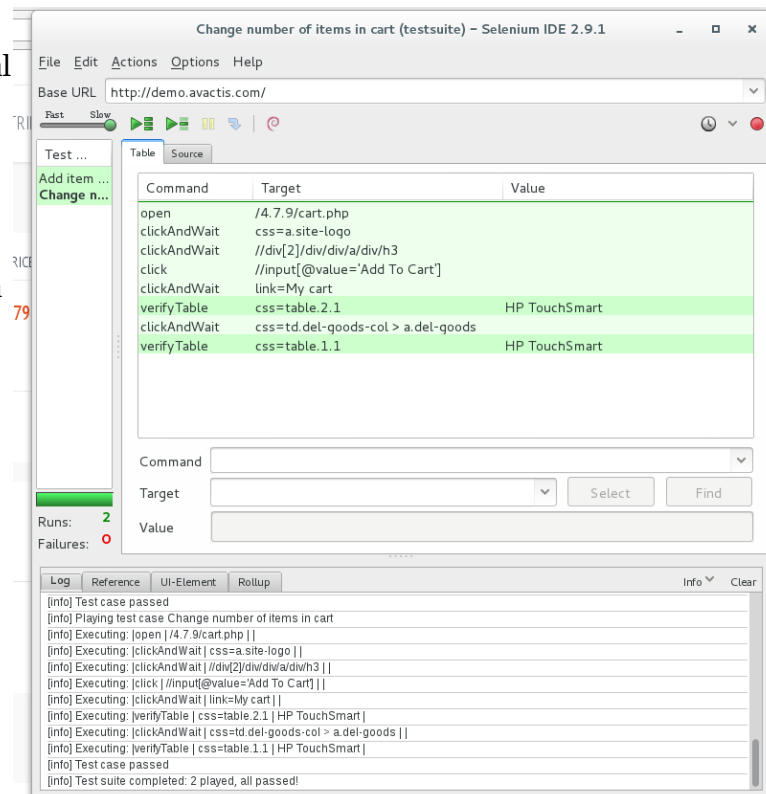
Cart Functionality

Automated tests and grouping

Both of the tests related to the cart functionality were automated, however the second test was changed due to our limited experience with Selenium (and possibly limited functionality of Selenium). The order is important since the second tests pre-condition was changed to having an item in the cart, which the first test .

Transitioning manual to automated

The automated version of "Add item to cart" gives total coverage without any changes to the test case. The automated version of "Change number of items" was changed to disregard the quantity functionality in the cart. This was done because we couldn't find a way to verify the quantity field. The test now adds one new item to the cart, and then proceeds to check if this item was added to the second position in the My Cart page. The test then removes the first product and checks if the second product now is in the first position in the My Cart page.



	Manual	Automated	Description
Test 1: Add item	✓	✓	Both successfully adds item
Test 2: Change qty	✓	✓	Both successfully change qty of items
Are all test covered?	Yes		

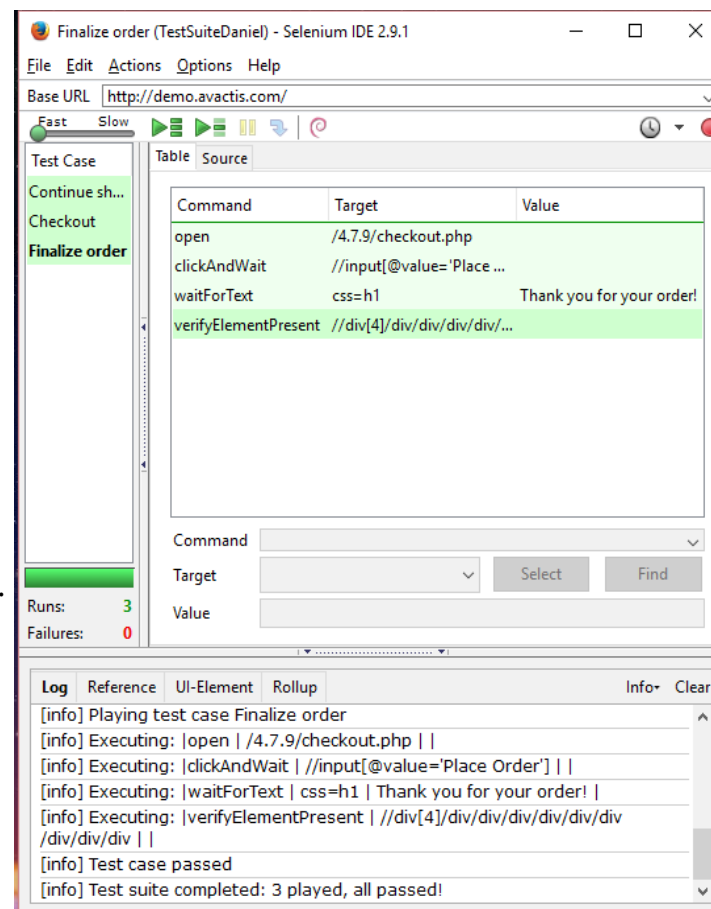
Checkout Functionality

Automated tests and grouping

The order is important seeing as the "Finalize Order" test cannot run unless the "Checkout" test has executed before. This is also true for the "Continue shopping" test, it has to be executed before "Checkout" and "Finalize Order" because this will empty the cart for items.

Transitioning manual to automated tests

All tests related to Checkout Functionality were automated. The coverage is total for all the test-cases.



	Manual	Automated	Description
Test 1: Contiune Shopping	✓	✓	Both can press Contiune Shopping
Test 2: Checkout items	✓	✓	Both succesfully check out items
Test 3: Finalize order	✓	✓	Botch succesfully finalizes order
Are all test covered?	Yes		