COM1028 Software Engineering
Testing Report Part 2
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1.   Introduction
This is the requirement testing document for my 'Online Market' project. I will only be testing the mandatory features as it would be most important features of my project to be completed.

2.   Requirements Testing
I will be testing the mandatory features of my functional requirements. I will also be testing the security requirement in the non-functional requirements section where the password should be hashed before being stored in the database.
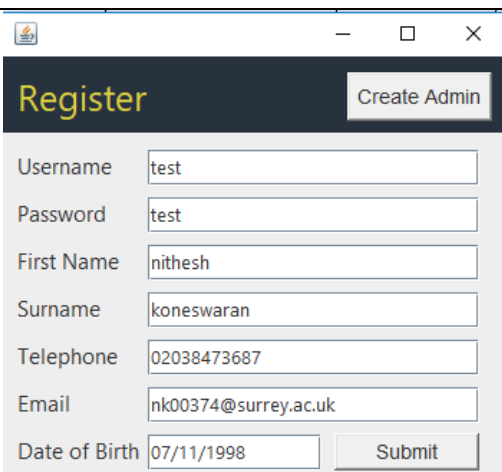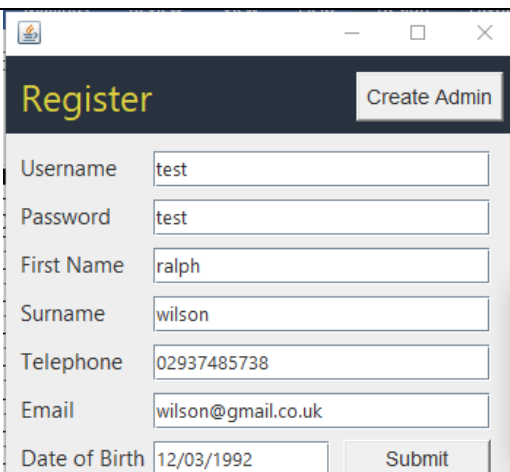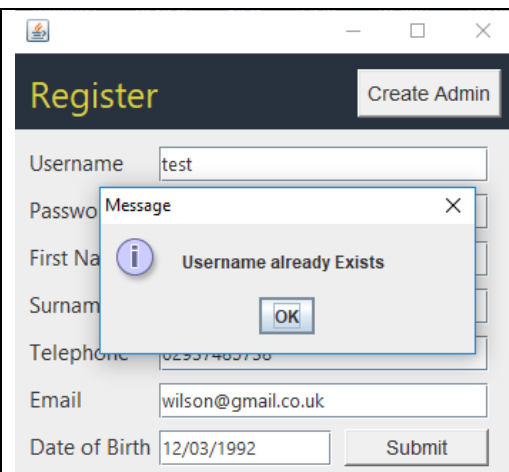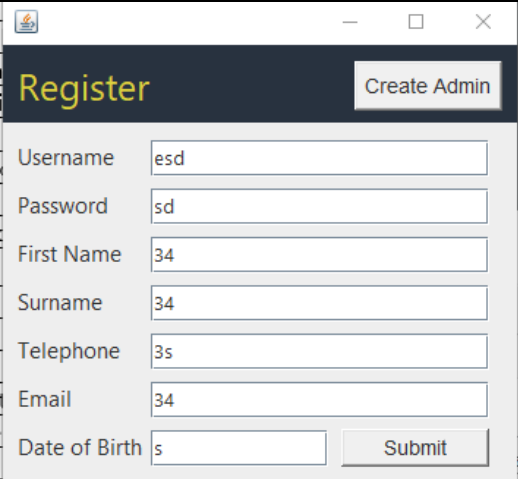
2.1.   Requirements Test Plan
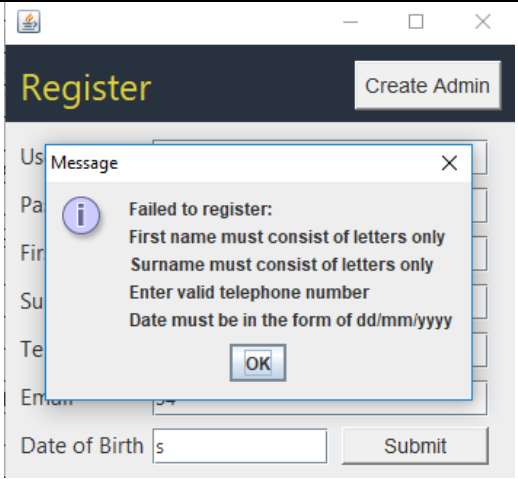
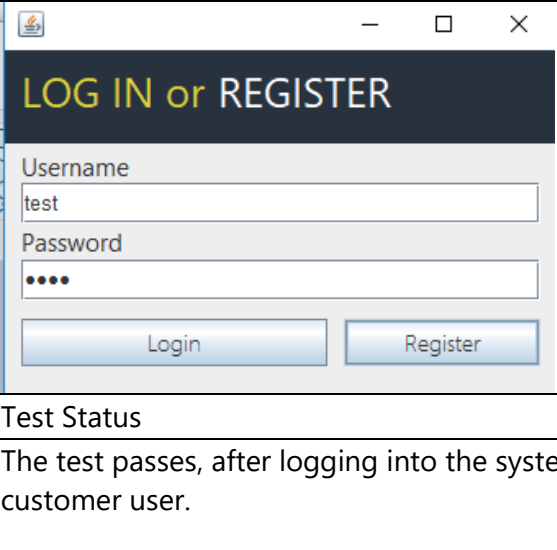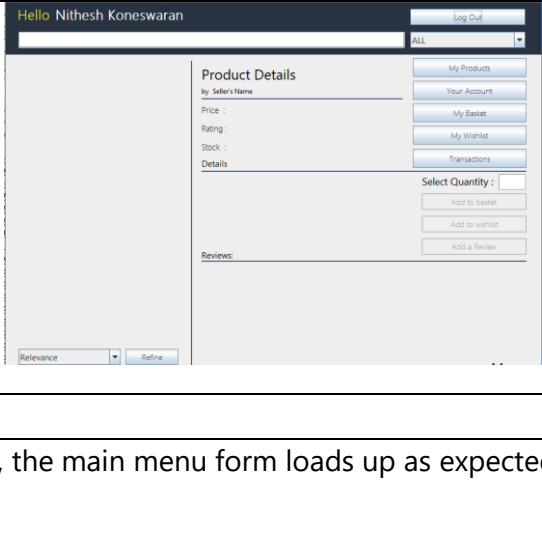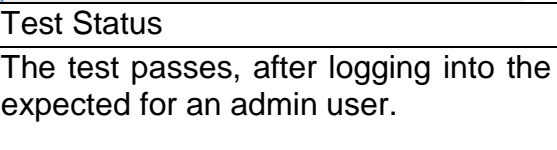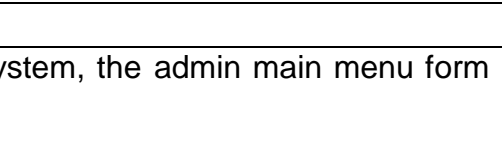| Test	Req No	Preconditions/ Dependencies/ Plan	Expected Inputs	Expected Results	Test Evaluation
The Login System					
1	1.7	None	All valid inputs that match the attributes of the data table when inserting data.	New row inserted in the User and Customer table.	Passes, the new data has been successfully inserted into the table.
2	1.5	Create an Initial customer. Create another customer with the same username.	Set the username with an existing one in the database	An error message should appear	Passes, error message popped up.
3	1.4	None	Insert values that will fail the validation when inserting a new user	An error message should appear with the list of validation failures	Passes, error message popped up.
4	1.1	Predefined Customer required	Input the predefined customer login details and login	The login should be successful and proceed to the main page	Passes, the login was successful, and it proceeds to the main page
5	1.1	Predefined Admin required	Input the predefined admin login details and login	The login should be successful and proceed to the admin main page	Passes, the login was successful, and it proceeds to the admin main page
User Access Level					

6	2.6	Predefined Customer required and already logged into the system.	Press the log out button.	The login form should appear	Passes, the login form appears as expected
7	2.8	Predefined Customer required.	User can add a new Product	The list of registered products should be updated with the new product	Passes, the list is updated as expected
8	2.8	Predefined Customer required.	User can remove a product that they had registered	The list of registered products should be updated	Failed, the list did not update
9	2.8	Predefined Customer required.	User can edit a product that they had registered	The Product table in the database should be updated with the edited changes	Passes, the database is updated as expected
10	2.7	Predefined Customer required Predefined set of registered products required	User presses 'Your Product' button, which loads the product form	The form containing JList should load the list of products that the customer had registered	Passes, the JList displays the list of products as expected
11	2.9	Predefined Customer required	User presses 'Your account' button, which loads the account form	The form should display the user's details	Passes, the details of the user is displayed through JLabels
12	2.11	Predefined Customer Required Predefined set of products required Products need to be verified	Users press the 'Wishlist' button which proceeds to a new form	The new form containing a textArea will load the user's wishlist	Passes as expected
13	2.12	Predefined Customer Required Predefined set of products required Products need to be verified	User presses 'Add To WishList'	The database should update the Customer_Wishlist table	Passes as expected
14	2.12	Predefined Customer Required Predefined set of products required Products need to be verified	User presses 'remove from WishList'	The database should update the Customer_Wishlist table	Passes as expected
15	2.14	Predefined Customer Required Predefined set of products required Products need to be verified	Users press the 'Basket' button which proceeds to a new form	The new form containing a JList will load the products the user has added to the basket	Passes as expected
16	2.15	Predefined Customer Required Predefined set of products required	Select Product, Select quantity, and press "Add to basket"	The database should update the Customer_Basket table	Passes as expected

		Products need to be verified			
17	2.15	Predefined Customer Required Predefined set of products in user's basket required	Select product in basket, and press remove from basket	The database should update the Customer_Basket table	Passes as expected
18	2.17	Predefined Customer required Predefined Transactions required	Select 'Transactions' button which proceeds to a new form	The form containing a textArea will load the list of transactions	Passes as expected
Admin Access Level					
19	3.1	Predefined List of Customers Predefined Admin	Log in with admin details	Admin main form should appear displaying a list of customers	Passes as expected
20	3.2	Predefined List of Customers Predefined Admin	Select a customer and press the ban button	The Customer should not be able to log in. Database should be updated.	Passed, the database is updated and the customer cannot log in
21	3.3	Predefined Customer Predefined List of products Predefined Admin	Select a Product and press the delete button	The Product should be removed from the database.	Passes as expected
22	3.4	Predefined Customer Predefined List of unverified products Predefined Admin	Select a Product and press the Verify button	The Product should be Verified now and should appear in the main list for customers	Passes as expected, database is updated with the changes.
23	3.4	Predefined Customer Predefined List of unverified products Predefined Admin	Select a Product and press the Un-verify button	The Product should be unverified now and should not appear in the main list for customers	Passes as expected, database is updated with the changes.
24	3.5	Predefined Actions, such as banning a customer, verifying an object etc. Predefined Admin	Selected Log Tab	The Log pane will have a textArea that'll display the list of actions	Passed as expected
Non-Functional requirements					
25	3.1.3	None	Attempt to register account	The password should be hashed	Passed as expected

2.2. Evidence of the Testing

Test Number	Input	Output
1		
	Test Status	
	Passed as expected, I have created the new account. I checked the database and found that the database has been updated as expected.	
2		
	Test Status	
	Using the previous existing data as test 1, I have attempted to add an account with the same username. The test ultimately passes.	

3		
	Test Status	
	The test passes, I have tested various fields and the following messages occur	
4		
	Test Status	
	The test passes, after logging into the system, the main menu form loads up as expected for a customer user.	
5		
	Test Status	
	The test passes, after logging into the system, the admin main menu form loads up as expected for an admin user.	

6		
	Test Status	
	The test passes, The user can then log out of the system. This was also the case with a customer user.	
7		
	Test Status	
	The test passes, The customer was able to add a product. After adding a product the JList in the Product form was refreshed and displayed the new product we just added	

| 8 | | My Products

1005 \| gtx1080 \| £523.99 |
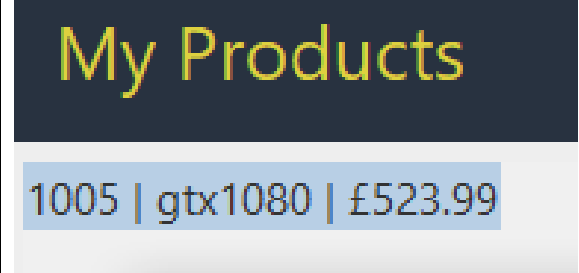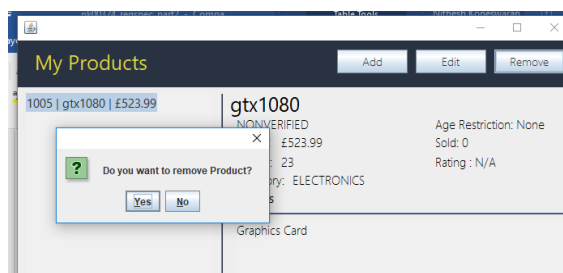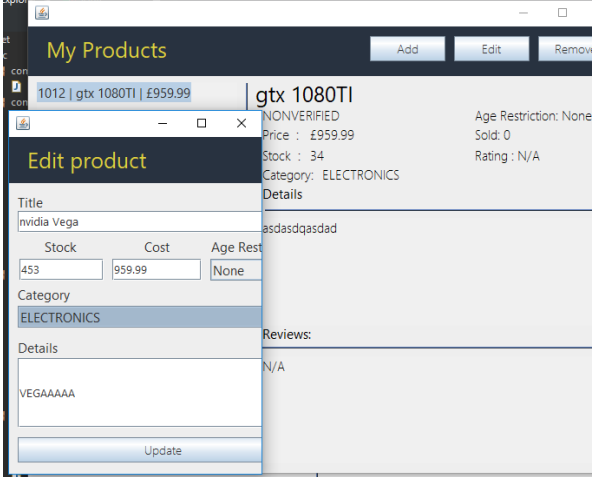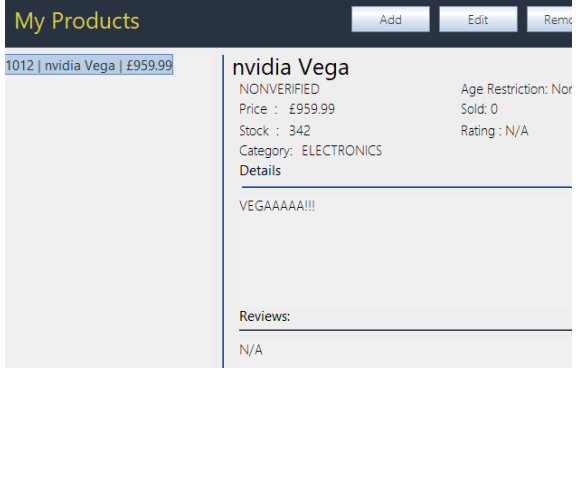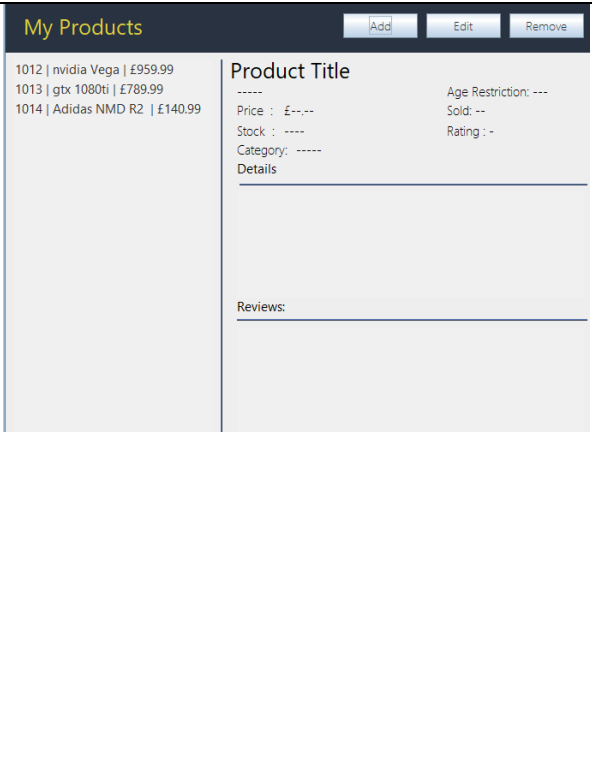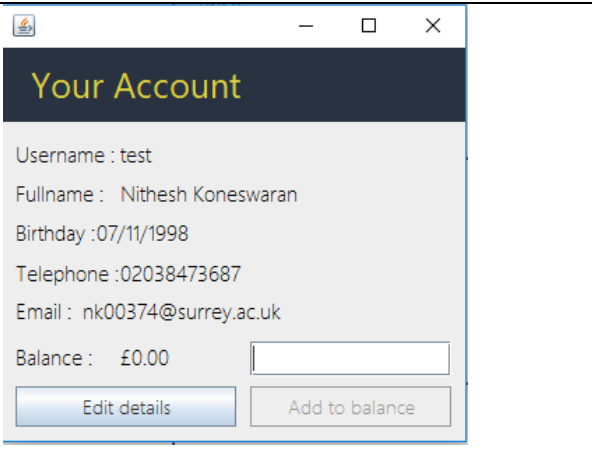
Test Status

The test failed. The list should have refreshed after being deleted but does not do so. This does not work because of the following code :
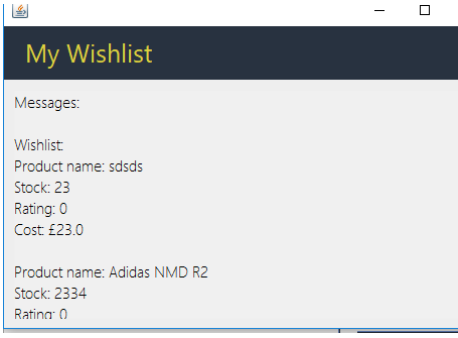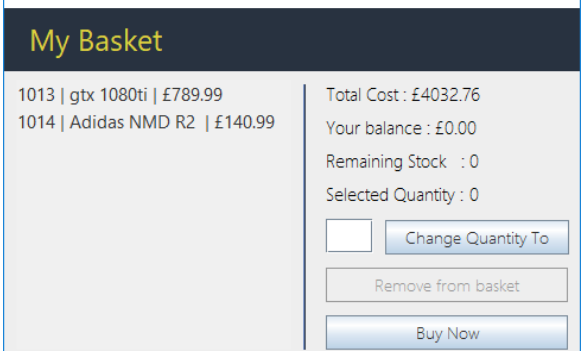
```java
/**
 * Loads the list of products that are registered by the currently logged in
 */
public void loadUsersProducts() {
    this.registeredProducts = this.customer.getRegisteredProducts();
    if (!this.registeredProducts.isEmpty()) {
        this.list.removeAll();
        DefaultListModel<String> listModel = new DefaultListModel<String>();
        for (Product product : this.registeredProducts) {
            listModel.addElement(this.id.format(product.getProductID()) + " |
                    + this.currency.format(product.getPrice()));
        }
        this.list.setModel(listModel);
    }
}
```
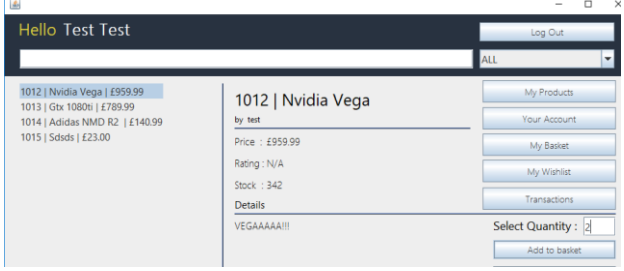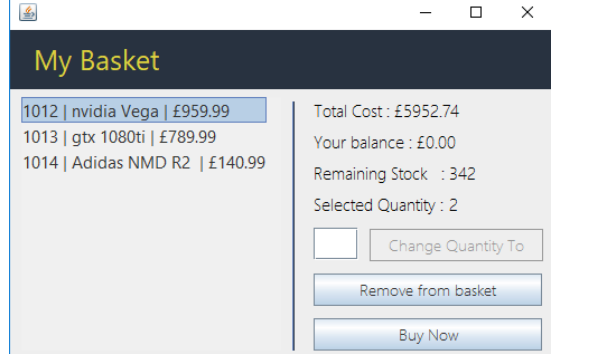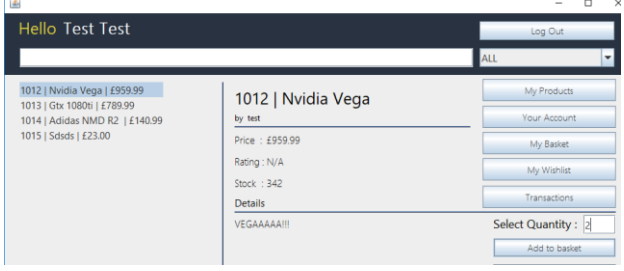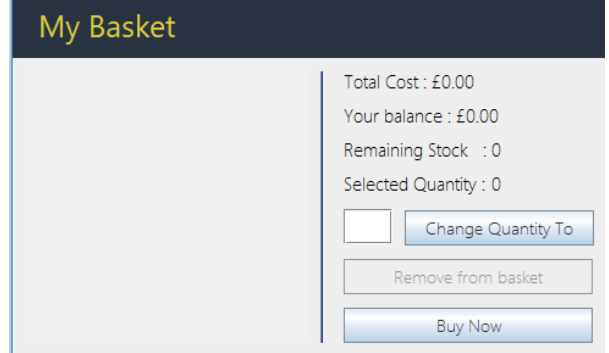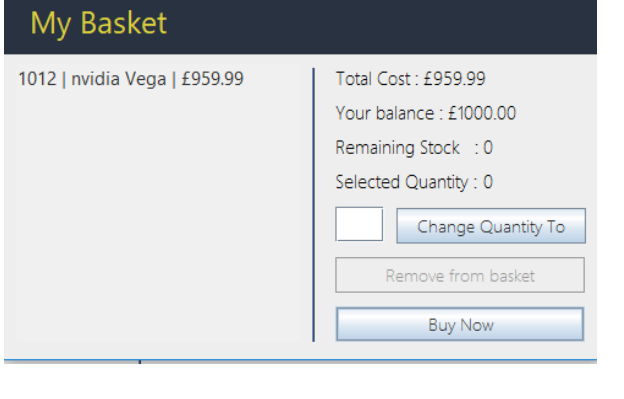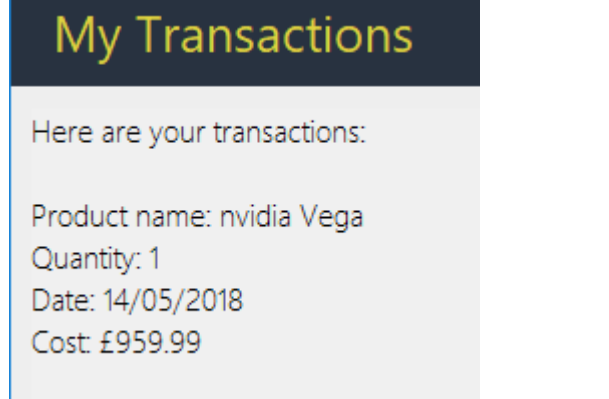
It gets called after the remove has been done. However, nothing happens if the list is empty, therefore in order to fix this I change the code to the following:

```java
/**
 * Loads the list of products that are registered by the currently logged i
 */
public void loadUsersProducts() {
    this.registeredProducts = this.customer.getRegisteredProducts();
    DefaultListModel<String> listModel = new DefaultListModel<String>();
    if (!this.registeredProducts.isEmpty()) {
        this.list.removeAll();
        for (Product product : this.registeredProducts) {
            listModel.addElement(this.id.format(product.getProductID()) + 
                    + this.currency.format(product.getPrice()));
        }
    }
    this.list.setModel(listModel);
}
```

9		
	Test Status	
	The test passes, The registered product can indeed be edited by the user.	
10		**Test Status** Test passes, as you can see there are a list of registered products created by the user.
11		**Test Status** Test passes, the user's information has been correctly displayed!

| 12 | | Test Status |
| | | Test passes, user's wishlist has been correctly displayed |

13		
	Test Status	
	The test passes, I have added the gtx1080ti product into the user's wish list. Opening the wish list form I can see that the product has successfully been added to the list.	

| 14 | | Test Status |
| | | Test passes. I had deleted the gtx1080ti product and the wishlist has successfully been updated |

| 15 | | Test Status |
| | | Test passes. I had added some items into the user's basket. I then proceeded onto the basket form and the list of products had appeared as expected. |

16		
	Test Status	
	The test passes, I have added the Nvidia Vega item into the basket, I added 2 quantities of it. Looking into the basket I can see that the item was indeed added.	
17		
	Test Status	
	The test passes, I removed all three items from the basket by pressing the remove from basket button. The result was that the products were removed from the list.	
17 and 18		
	Test Status	
	The test passes, after buying the basket I moved to the transaction form and the following was displayed. So it had worked as expected. This is also passes test 18 as from the image you can see that the transactions are listed as expected.	

19	
Test Status	
The test passes, I had logged in with an admin user and the Admin control center form popped up after logging in.	
20	
Test Status	
The test passes, On the left image I logged into an admin account and pressed the ban button. On the right I tried logging in with the banned account and found the user does not have access to the software.	
21	
Test Status	
The test passes, On the left image I logged into an admin account and deleted a product. Looking at the right the product does not exist in the database anymore so the delete was successful.	

22	
	Test Status
	The test passes, On the left image I logged into an admin account and verified a product, on the right you can see that the 1 under verified indicated that the product is verified. Therefore the test was succesfull
23	
	Test Status
	The test passes, On the left image I logged into an admin account and unverified a product, on the right you can see that the 0 under verified indicated that the product is not verified. Therefore, the test was successful.
24	
	Test Status
	Test passes. After all the series of tests from before the actions made by the admin should be logged. The logged data has been displayed on the left. This works as intended.
25	
	Test Status
	The test passes, I had registered a new account. Looking into the database I can see that the password has been encrypted as expected.