

# **VENN DIAGRAM TESTING DOCUMENT**

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# **Test Cases**

## **Test Case 1: New User Button**

### **Test Case 1:**

- 1) **Type into Username:** Tom
- 2) **Type into Password:** Uni
- 3) **Click New User Button**

### **Expected Result**

- 1) Expected result should be “New user: Tom has been created”  
When the user clicks ok, the Venn Diagram window will be displayed

### **Test Case 2:**

- 1) **Close Previous Session**
- 2) **Type into Username:** Tom
- 3) **Type into Password:** Uni
- 4) **Click New User Button**

### **Expected Result**

- 1) Expected result should be “Please enter a valid entry”

## **Test Case 2: Login Button**

### **Test Case 1:**

- 1) **Based On Previous Session**
- 2) **Type into Username: Tom**
- 3) **Type Into Password: Uni**
- 4) **Click the Login Button**

### **Expected Results**

- 1) Expected result should be “**Welcome**” and the Venn Diagram Window should Pop Up

### **Test Case 2:**

- 1) **Close Previous Session**
- 2) **Type into Username: Tom**
- 3) **Type Into Password: Uni123**
- 4) **Click the Login Button**

### **Expected Results**

- 1) Expected result should be “**Incorrect**”

## **Test Case 3: Delete User Button**

### **Test Case 1:**

- 1) **From Previous session**
- 2) **Type into Username: Tom**
- 2) **Type into Password: Uni**
- 3) **Click the Delete User Button**

### **Expected Output**

- 1) The expected output should be "User: Tom has been deleted"

### **Test Case 2:**

- 1) **From Previous Session**
- 2) **Type into Username: Tom**
- 3) **Type into Password: Uni**
- 4) **Click the Delete User Button**

### **Expected Output**

- 1) The expected output should be "User: Tom does not exist"

## **Test Case 4: Entry Button**

### **Test Case 1:**

- 1) **Use Test Case 1.1 Again**
- 2) **Input: EECS2311**
- 3) **Press “enter”**
- 4) **Drag the entry outside the venn diagram**
- 5) **Click Enter**
- 6) **Drag the entry back into the left circle**

### **Expected Result**

- 1) A new entry is generated with the content “EECS2311”
- 2) A warning sign should pop up at step 4
- 3) Entry is inside the left circle

### **Test Case 2:**

- 1) **Default Screen**
- 2) **Press “enter”**

### **Expected Result**

- 1) Text pop up displaying “Please enter valid entry”

## **Test Case 5: Set Title Button**

### **Test Case 1:**

- 1) **User Input:** Software engineering
- 2) **Click the Set Title button**

### **Expected Results:**

- 1) The title of the category was successfully set to "Software engineering"

### **Test Case 2:**

- 1) **From Previous Test Case**
- 2) **Click the Change Title Button**
- 3) **Empty the textfield**
- 4) **Click the Set Title Button**

### **Expected Results:**

The title will not change, and display "Please enter a valid entry."

## **Test Case 6: Change Title Button**

### **Test Case 1:**

- 1) **Input into Title:** Software Tools
- 2) **Click the Set Title Button**
- 3) **Press Enter**
- 4) **Click the Change Title Button**

### **Expected Result**

- 1) "Title is now Unlocked"
- 2) Type in new Title and Click on Set Title

### **Test Case 2:**

- 1) **Make the title field Empty**
- 2) **Click the Change Title Button**

### **Expected Result**

- 1) "No Title Yet"



## **Test Case 7: Color Button**

### **Test case 1:**

- 1) **Click on the Circle 1 Color Button**
- 2) **Set Color to Yellow**

### **Expected Result**

- 1) The color Yellow appears on the Left Circle

### **Test case 2:**

- 1) **Click on the Circle 2 Color Button**
- 2) **Set Color to Green**

### **Expected Result**

- 1) The color Green appears on the Right Circle

## **Test Case 8: Clear All Button**

### **Test Case 1:**

- 1) **Use Test Case 4 four times**
- 2) **Drag two of the entries into the left side**
- 3) **Drag two entries into the right side**
- 4) **Click Clear All Button**

### **Expected Results:**

- 1) The entries are cleared and you are back the the default screen

### **Test Case 2:**

- 1) **Nothing is done yet**
- 2) **Click the Set Clear All Button**

### **Expected Results:**

- 1) The software will display “It is Already Empty”.

## **Test Case 9: Export Button**

### **Test Case 1:**

- 1) **Create four entries one by one**
- 2) **Entries are “one”, “two”, “three”, “four”**
- 3) **Drag 1 and 2 to the left of the venn diagram**
- 4) **Drag 3 in the middle of the venn diagram**
- 5) **Drag 4 in to the right of the venn diagram**
- 6) **Click Export Button**
- 7) **Save the file name**

### **Expected Results:**

- 1) The software will display "Entry saved", then a new window will pop up, the user can select the directory to save the content.
- 2) Upon opening the xlsx file the corresponding entries are in their respective columns that indicate what side they were on

### **Test Case 2:**

- 1) **Nothing is done**
- 2) **Click Export Button**

### **Expected Results:**

- 1) The software will tell the user that there are no entries to be saved

# **Test Case Sufficiency**

## **Test Case 1 Sufficiency: Login Button**

These test cases are sufficient because it is needed to check if the login is consistent with the users logging in so that they can access the venn diagram window.

## **Test Case 2 Sufficiency: New User Button**

It is important to test the new user button to enable users create a new account and avoid having the same username.

## **Test Case 3 Sufficiency: Delete User Button**

Delete Button test case is sufficiency, because we need to know whether the user can successfully delete the existing account when the user wants to clear an account, and the data in the data is also erased

## **Test Case 4 Sufficiency: Entry Button**

Entry Button test case is sufficient because it is very important for the creation of a venn diagram entry. We already confirm that the user can input and automatically generate draggable entries.

## **Test Case 5 Sufficiency: Set Title Button**

Set Title Button is sufficiency, we already make sure the client can use Set Title Button to set a valid name, except the empty string, and make sure only Change Title Button can overwrite it.

### **Test Case 6 Sufficiency: Change Title Button**

The change title button test case is sufficient because it is important for users, if they want to change the title and to alert them when there is no title at all.

### **Test Case 7 Sufficiency: Color Button**

Color Button test case is sufficient because we have guaranteed that users can print the three categories of venn diagram with different background colors. This already includes the situation that all customers will want to implement the color button

### **Test Case 8 Sufficiency: Clear All Button**

Clear All button is sufficient because it is needed when users want to start a new venn diagram session or when they are just done with a session. The test case is important because it sees if the users entries have been completely reset to default.

### **Test Case 9 Sufficiency: Export Button**

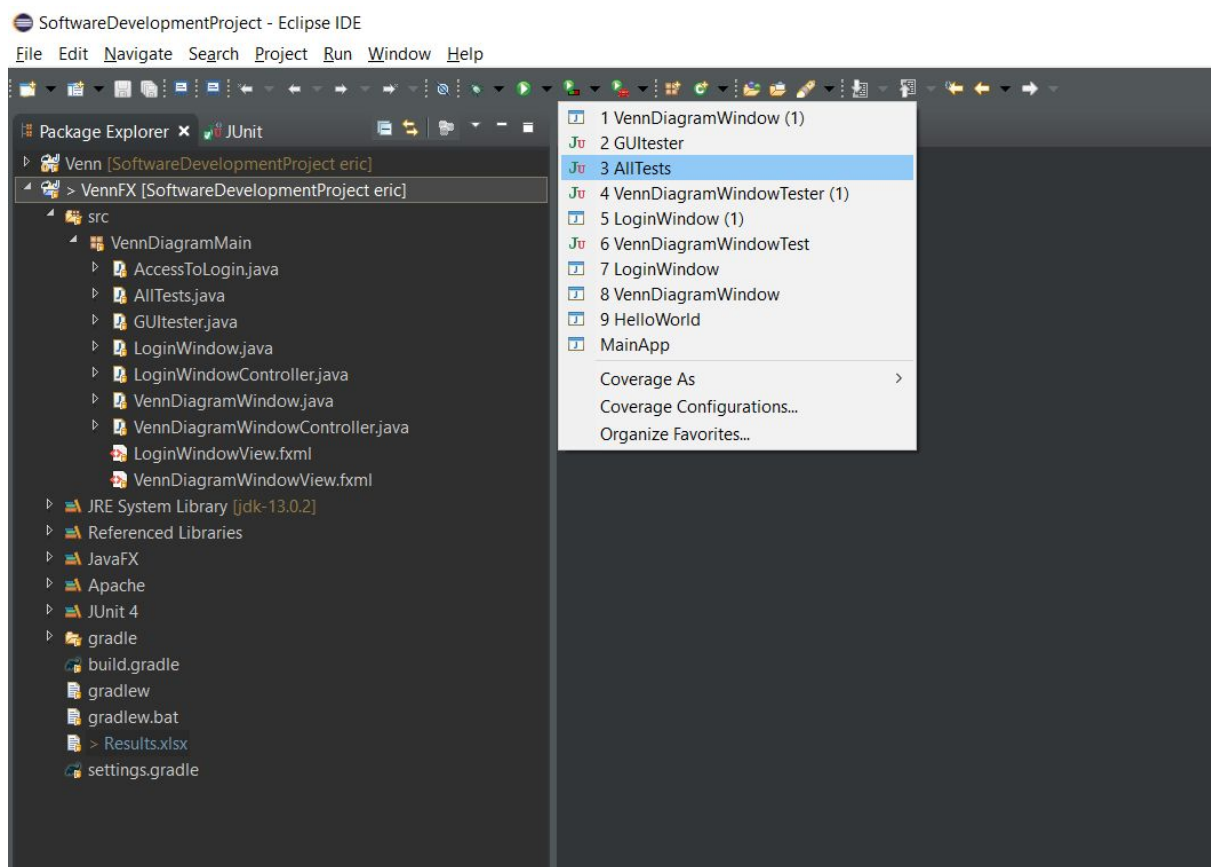
Export Button test case is sufficient because we tested that both edited and empty venn diagrams can be successfully imported into an excel file, and without the support of the Venn diagram, it can still be opened to view the contents.

# Test Coverage

In our current version extensive JUnit testing is yet to be directly implemented and the testing is done manually with our testing class “GUItester.java”

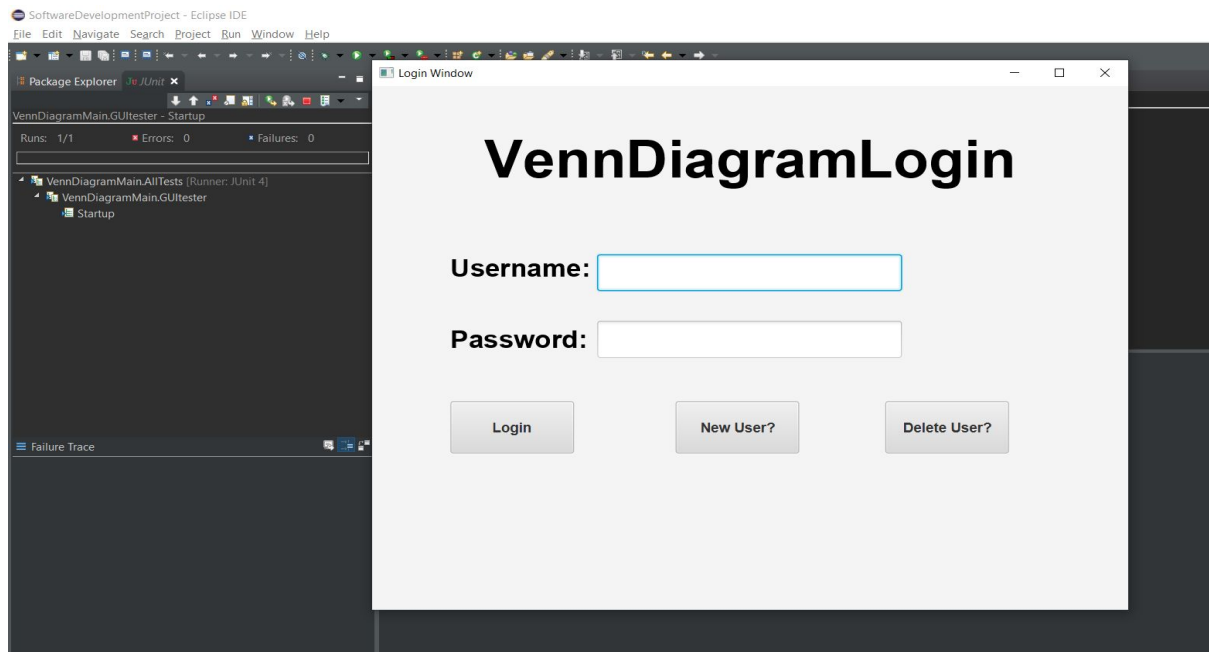
Steps to use this testing class:

- 1) Open Project in eclipse IDE
- 2) Click on the Coverage Button Options and then press the Class AllTests.java



Coverage is the Run Icon With The Green And Red Bar Underneath

3) Now the test should be running and the Login Window Should open



This Is What Should Pop Up

4) Now to test the functions in the application you can use the test cases that we provided above in the test cases section. (Keep in mind that once you close the application then the coverage results will show). So try to test the functions in a manner so that everything can be covered before closing.

The screenshot shows the Eclipse IDE interface with the 'Coverage' tab selected. The table displays coverage results for 'AllTests (Feb. 23, 2020 10:32:19 p.m.)'. The table has five columns: 'Element', 'Coverage', 'Covered Instructions', 'Missed Instructions', and 'Total Instructions'. The data is as follows:

Element	Coverage	Covered Instructions	Missed Instructions	Total Instructions
VennFX	87.1 %	1,068	158	1,226
src	87.1 %	1,068	158	1,226
VennDiagramMain	87.1 %	1,068	158	1,226
LoginWindowController.java	78.0 %	316	89	405
LoginWindowController	78.0 %	316	89	405
VennDiagramWindow.java	0.0 %	0	43	43
VennDiagramWindowControl	97.7 %	679	16	695
AccessToLogin.java	83.3 %	15	3	18
AllTests.java	0.0 %	0	3	3
LoginWindow.java	93.8 %	45	3	48
GUITester.java	92.9 %	13	1	14

Example of a good amount of Coverage from testing the GUI

Overall this method of testing our application will suffice for determining the accuracy of our functions. In the final version these tests will be automated and users won't have to manually complete the tests themselves to determine the coverage. The coverage that we got from testing most of the test provided above gave a good indication that we covered most of the code we wrote and that majority of it was used in the testing thus, validating the completeness of our tests and programm.