

Task 2 - Action Listeners - Feedback Report

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September 19, 2014

1 Adding a Menu - (6 marks)

Creation of menu's in DrawFrame class to specification, correctly added to the central frame. Layout and structure of code in addMenus() is excellent - **6/6**

1.1 Adding Shortcut Keys - (5 marks)

Shortcut keys correctly added to the menu functions. Consider splitting up the assignment of mnemonics and accelerators into two steps to make it easier to read - **5/5**

1.2 Adding Action Listeners - (10 marks)

Correctly created private listener classes for each action, prints out name of action when used. Since we will not be directly performing actions on the action listener classes, there is no need to instantiate them as objects - you can simplify the process of adding listeners to actions doing the following:

```
open.addActionListener(new OpenListener());  
//OpenListener open_listener = new OpenListener(); - line now redundant
```

Total for this section - **8/10**

2 Adding a Mouse Listener - (8 marks)

Code for this is very clean and well commented. You have efficiently and effectively used your resources to complete this question - excellent work. However this section also suffers from the same issue mentioned above when adding your listeners to actions - **7/8**

2.1 Adding a Mouse Motion Listener - (5 marks)

Again, code for this is very good but no need to instantiate an object for the private listener class - **4/5**

3 Checking your Code (6 marks)

**Note: For each file - 1 mark each goes to comments, layout/structure and conforming to the function/variable naming standards. This does not include Draw.java as this has not been changed.*

There are two major issues with your files, and they both relate to comments:

1. You have still not moved your file comments below the import statements - please fix this ASAP.
2. You are not using the standard JavaDoc comments. You start every block comment with a /* when in fact it should be /**. This might not seem important but when you fix this, you will see some text in some of your comments go red - this is a good thing! The reason for this strict commenting style is such that if Oracle (owners of Java) ever decides to use YOUR class, it has to conform to this - as they automatically scan each class file for these comments to elicit the class API.

Total marks - 4/6

4 What to fix?

- Commenting - as suggested above.
- The instantiation of your action listeners in both DrawFrame and DrawPanel.

5 Program Understanding

Action listeners do not need constructors - since we are implementing them rather than extending, this tells the action listener class we will allow it to do some operations on our class. The action listener objects are created behind the scenes and managed by the Java GUI libraries, and only when it sees a function we have “implemented” will it use the function in our class, rather than the default action.

So in short - yes action listeners do have constructors, but since we are not allowed to manage the listener object we never need to call one!

Total marks - 34/40