Enhance the drawing tool in the last homework. You don’t have to implement all the features in the list. Also, you have to continually maintain you test code and modify your class diagram.

1. Please enhance your program to support the following features:
   (1) (10%) Support the ability of deleting a selected classifier (and all the generalizations and relationships related with the classifier) in the diagram editor.
   (2) (10%) Support the ability of deleting a selected link between two classifiers in the diagram editor.
   (3) (10%) Add a button in the toolbar and a menu item to provide the function of saving the current diagram and saving as another file.
   (4) (10%) Add the buttons in the classifier property dialog to decide whether showing the attributes and operations or not. In other words, you could hide the attributes or the operations or both selectively.
   (5) (10%) Draw the class diagram of your program using the program you write. The class diagrams could be drawn in the design perspective.
   (6) (15%) Support the ability of selecting many elements, and then you can move and delete these elements at one time. (Hint: you could apply the Composite pattern to support the multiple selected elements, and apply the Visitor pattern to do an operation on the object structure of selected elements.)
   (7) (15%) Add a button in the toolbar to query all the generalizations and relationships which directly related with a selected classifier and your program should highlight these resulting elements in different color. This query button should be disabled without selecting a classifier.

2. (10%) Please keep your unit tests running. You have to add any new tests for the new programs written in this homework. Also, you should maintain your unit test programs written before.

3. (10%) Draw class diagrams for the program in UML. To do this they need to have every function encapsulated in a class, if not already so. The class diagrams will be drawn in the design perspective. (Note: you do not need to draw the class diagram for unit tests).
4. **Bonus:**

   (1)  (20%) Keep a history to record these actions including move, new, delete, and modify an element in the diagram. And you can add the redo and undo mechanism for your program.

   (2)  (20%) Support the ability of resizing a select classifier. Once you selected a classifier, the surrounding of the classifier would show anchors in 8 directions and then you can drag and drop one anchor to resize the classifier. If the texts of the classifier could not fit the rectangle after you resize, you can trim off the exceed part and replace the part with “…" words.