

## Last Practical Programming Test Preparation – OOP

Looking at the UML class diagram below, create all four classes with their respective attributes and methods as shown. You may create main methods to test the classes, but it is neither graded nor necessary. This may help to test and debug your classes, though.

The **Shape** class is given to give you structure and get you started.

### WhiteBoard class

1. add method takes an existing Shape object and adds it to the whiteBoard ArrayList
2. getLargest returns the shape with the largest area of all the shapes in the whiteBoard ArrayList.
3. size returns how many shapes are in the whiteBoard ArrayList.

Extra challenges:

- add a remove method to delete a shape given its name. Assume each shape name is unique.
- Use a collection ([linked] list) to store the shapes, instead of an ArrayList.

### Square and Rectangle classes

Ensure that they contain all the attributes/fields and methods shown in the diagram. They should all be self-explanatory.

Good luck!

