**Exercise 1:***Create a class called shape with the following methods*

1. *area*
2. *perimeter*

*Overload the area and perimeter method to calculate for both square and rectangle.*

*Create a main class and invoke the area method to calculate the area of the square and rectangle. Also invoke the perimeter method to calculate the perimeter of the square*

*and rectangle.*

**Exercise 2:***Create a class called Sample. Write a program to display the no of objects created for that class or the no of times that class is instantiated.*

**Exercise 3:** *Consider user has N eggs. Then display the no of eggs in gross (144 eggs make one gross) and no of eggs in dozen (12 eggs make one dozen) and the no of eggs that is left out remaining. The total no of eggs can be got as input through command line. The program should display how many gross, how many dozen, and how many left over eggs the user has.*

**Exercise 4:***Create a class called Shape3D with the following method signatures volume () and surfaceArea (). Then create subclasses like Cylinder, Sphere, and Cube etc and implement these methods.*