Task 1

Create classes called **Rectangle, Circle** and **Triangle,** which are all inherited from the class **Shape.** Create a class called **Square** which is inherited from **Rectangle**.
The classes will have the following members:

Rectangle:

- length
- width
- parametrized constructor
- generateArea() – should place the result in area

Circle:

- radius
- parametrized constructor
- generateArea() – should place the result in area

Triangle:

- height
- base
- parametrized constructor
- generateArea() – should place the result in area (Area = height*base/2)

Square:

- It should have a parametrized constructor that takes **one side** as input. The constructor should call the constructor for **Rectangle** class with that value as parameters.
- checkSides(); - checks if both sides are equal. Sides are inherited from **Rectangle**.
- generateArea() – should place the result in area

You must make use of parametrized constructors to initialize the values.

Task 2

1. A boy has his money deposited $1000, $1500 and $2000 in banks-Bank A, Bank B and Bank C respectively. We have to print the money deposited by bank.

Create a class 'Bank' with a method 'getBalance' which returns 0. Make its three subclasses named 'BankA', 'BankB' and 'BankC' with a method with the same name 'getBalance' which returns the amount deposited in that particular bank. Call the method 'getBalance' by the object of each of the three banks.

Task 3

Write a program to calculate final bill after discount. “ImtiazStore” gives 7 percent discount on total_bill while “BinHashimStore” gives 5 percent discount on total_bill. You have to initialize value of total_bill through a constructor and then calculate final bill after discount for both stores using the concept of abstract class and abstract functions.

Task 4

Generate the Java Code of following Class diagram