OOP using JAVA - LAB

Assignment 6

Topic: Abstract class, Interface, Dynamic binding

Sl. No.	Question
1	Define an abstract class named "GeometricFigure", having data members dim1 and dim2. Extend this class to create two concrete classes named as Rectangle and Triangle. Override the getArea() method in the sub classes. Invoke the getArea() method in the main method of another Driver class through the abstract class reference variable.
2	Define an interface Calculator which has the basic methods add(), sub( ), mul() and div(). Define a concrete class named as DemoCalculator that implements the interface. Define the driver class, which create object reference of the interface Calculator and perform all basic operation of the calculator.
3	Write a program to create a class named Shape. It should contain two methods, draw() and erase() that prints "Drawing Shape" and "Erasing Shape" respectively. For this class, create three sub classes, Circle, Triangle and Square and each class should override the parent class functions - draw () and erase (). The draw() method should print "Drawing Circle", "Drawing Triangle" and "Drawing Square" respectively. The erase() method should print "Erasing Circle", "Erasing Triangle" and "Erasing Square" respectively. Create objects of Circle, Triangle and Square, assign each to Shape variable(reference) and call draw() and erase() method using each object.