1. Write a JAVA program to implement Single Inheritance

```
class Father
{
   void land()
   {
      System.out.println("5 Arcs of Land.");
   }
}
class Son extends Father
{
   void car()
   {
      System.out.println("Audi Car");
   }
}
public class Single_Inheritance
{
   public static void main(String[] args)
   {
      Son s=new Son();
      s.land();
      s.car();
   }
}
```

Output

5 Arcs of Land.

Audi Car

2. Construct a java program to demonstrate multi-level inheritance.

```
class GrandFather
{
        void house()
        {
                System.out.println("3 BHK House.");
         }
}
class father  extends GrandFather
{
        void land()
        {
                System.out.println("5 Arcs of Land..");
        }
}

class son extends father
{
        void car()
        {
                System.out.println("Own Audi Car..");
        }
}
public class multilevel
{
        public static void main(String args[])
        {
                 son o = new son();
                o.car();
                o.house();
                o.land();
        }
}
```

OUTPUT:

Own Audi Car..

3 BHK House.

5 Arcs of Land..

3. Construct a java program uses abstract classes to find areas of different shapes.

```
import java.util.Scanner;
abstract class CalcArea
{
        abstract void findRectangle(double l, double b);
        abstract void findSquare(double s);
         abstract void findCircle(double r);
}
class FindArea extends CalcArea
{
        void findRectangle(double l, double b)
        {
                 double area = l*b;
                System.out.println("Area of Rectangle: "+area);
        }
         void findSquare(double s)
        {
                double area = s*s;
                System.out.println("Area of Square: "+area);
        }
        void findCircle(double r)
        {
                double area = 3.14*r*r;
                System.out.println("Area of Circle: "+area);
        }
}
public class Area
{
        public static void main(String args[])
        {
                double l, b, r, s;
                FindArea area = new FindArea();
                 Scanner get = new Scanner(System.in);

                System.out.print("\nEnter Length & Breadth of Rectangle: ");
                 l = get.nextDouble();
                b = get.nextDouble();
                area.findRectangle(l, b);

                System.out.print("\nEnter Side of a Square: ");
                s = get.nextDouble();
                area.findSquare(s);

                System.out.print("\nEnter Radius of Circle: ");
                 r = get.nextDouble();
                area.findCircle(r);
        }
}
```

OUTPUT:

Enter Length & Breadth of Rectangle: 5 5 Area of Rectangle: 25.0
Enter Side of a Square: 5 Area of Square: 25.0
Area of Square: 25.0 Area of Circle: 12.56