Hierarchical Inheritance

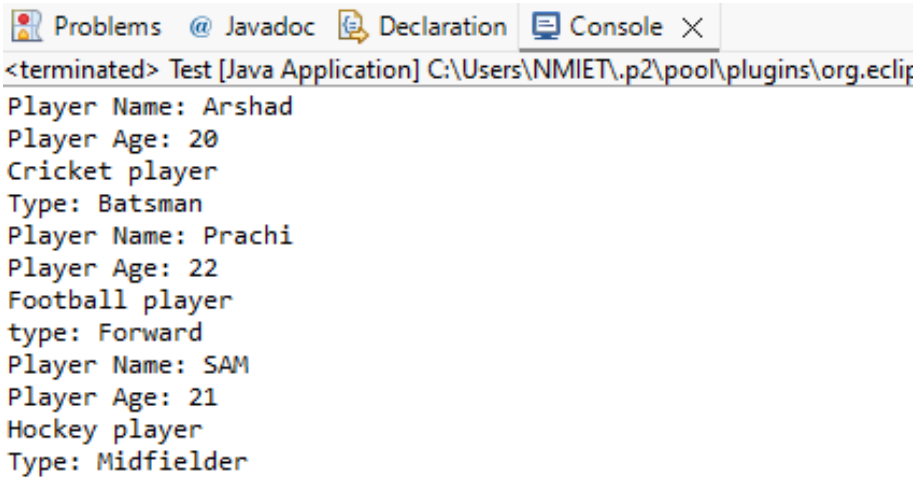
Name: Samiksha Thakur[57]

CODE:

```
package Inherit;
public class Test{

    public static void main(String[] args)
    {
        Cricket_player c = new Cricket_player("Arshad", 20, "Batsman");
        Football_player f = new Football_player("Prachi", 22, "Forward");
        Hockey_player h = new Hockey_player("SAM", 21, "Midfielder");
        c.show();
        f.show();
        h.show();
    }
}
class Player {
    String name;
    int age;

    Player(String name, int age) {
        this.name = name;
        this.age = age;
    }

    void show() {
        System.out.println("Player Name: " + name);
        System.out.println("Player Age: " + age);
    }
}

class Cricket_player extends Player {
    String type;

    Cricket_player(String name, int age, String type) {
        super(name, age);
        this.type = type;
    }
    void show() {
        super.show();
        System.out.println("Cricket player");
        System.out.println("Type: " + type);
    }
}
class Football_player extends Player {
    String type;
```

```
    Football_player(String name, int age, String type) {
        super(name, age);
        this.type = type;
    }
    void show() {
        super.show();
        System.out.println("Football player");
        System.out.println("type: " + type);
    }
}
class Hockey_player extends Player {
    String type;

    Hockey_player(String name, int age, String type)
    {
        super(name, age);
        this.type = type;
    }
    void show() {
        super.show();
        System.out.println("Hockey player");
        System.out.println("Type: " + type);
    }
}
```

Output:



Addition of Two Matrices

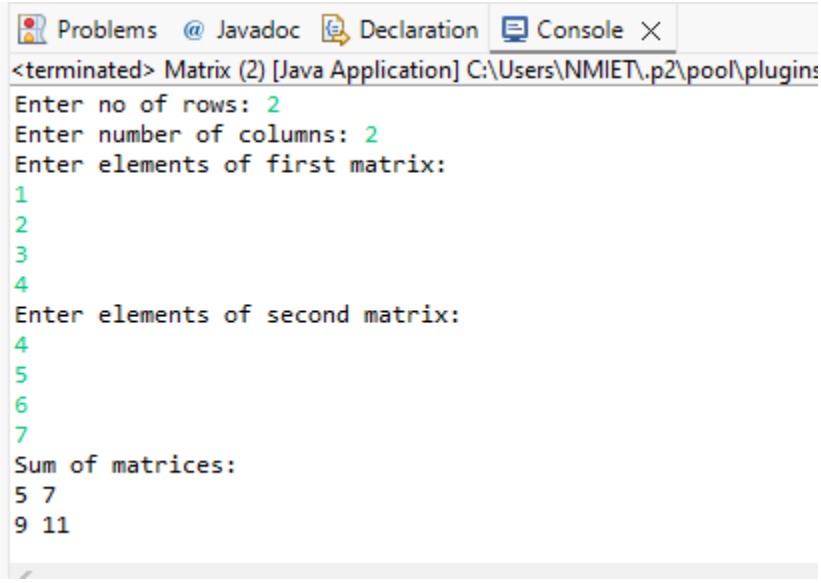
Name: Samiksha Thakur [57]

CODE:

```
package Inherit;
import java.util.Scanner;

public class Matrix {

          public static void main(String[] args) {
              Scanner sc = new Scanner(System.in);
              System.out.print("Enter no of rows: ");
              int rows = sc.nextInt();
              System.out.print("Enter number of columns: ");
              int col = sc.nextInt();

              int[][] r = new int[rows][col];
              int[][] c = new int[rows][col];
              int[][] sum = new int[rows][col];


              System.out.println("Enter elements of first matrix:");
              for (int i = 0; i < rows; i++)
              {
                  for (int j = 0; j < col; j++)
                  {
                      r[i][j] = sc.nextInt();
                  }
              }
              System.out.println("Enter elements of second matrix:");
              for (int i = 0; i < rows; i++)
              {
                  for (int j = 0; j < col; j++)
                  {
                      c[i][j] = sc.nextInt();
                  }
              }
              for (int i = 0; i < rows; i++)
              {
                  for (int j = 0; j < col; j++)
                  {
                      sum[i][j] = r[i][j] + c[i][j];
                  }
              }
```

```
            System.out.println("Sum of matrices:");
            for (int i = 0; i < rows; i++)
            {
                for (int j = 0; j < col; j++)
                {
                    System.out.print(sum[i][j] + " ");
                }
                System.out.println();
            }
            sc.close();
        }
    }
```

Output:



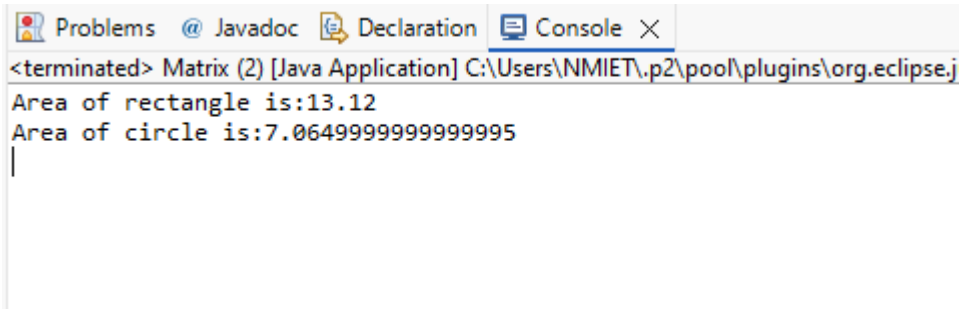
Interface

Name: Samiksha Thakur[57]

CODE:

```
package Inherit;

public interface Area {


	double pi=3.14;
	void compute(double x,double y);
	}
	class Rect implements Area
	{
		public void compute(double x,double y)
		{
		double a=x*y;
		System.out.println("Area of rectangle is:"+a);
		}
	}
	class circle implements Area
	{
		public void compute(double x,double y)
		{
			double s=pi*x*x;
			System.out.println("Area of circle is:"+s);
		}
	}
	class Demo
	{
		public static void main(String[] args)
		{
			Rect r=new Rect();
			circle c=new circle();
			r.compute(3.2, 4.1);
			c.compute(2.4, 3.2);
		}
	}
```

Output:


Problems
Javadoc
Declaration
Console
<terminated> Matrix (2) [Java Application] C:\Users\NMIET\.p2\pool\plugins\org.eclipse.j
Area of rectangle is:13.12
Area of circle is:7.0649999999999995