Practical No. 4

```
package Prac4;
import java.util.Scanner;

abstract class Shape
{
	int length,breadth;
	Scanner sc = new Scanner(System.in);

	public void getdata()
	{
		System.out.println("Enter Length : ");
		length = sc.nextInt();
		System.out.println("Enter Breadth : ");
		breadth = sc.nextInt();
	}

	abstract public void printarea();
}

class Rectangle extends Shape
{
	int rec_area;

	public void printarea()
	{
		rec_area = length * breadth;
		System.out.println("Area of Rectangle = "+rec_area);
	}
}

class Triangle extends Shape
{
	double tri_area;

	public void printarea()
	{
		tri_area = 0.5 * length * breadth;
		System.out.println("Area of Triangle = "+tri_area);
	}

}

public class Dynamic {

	public static void main(String[] args)
	{
	Shape p;
	Scanner sc = new Scanner(System.in);
	int ch;

	do
	{
	 System.out.println("\n1.Area of Rectangle\n2.Area of
Triangle\n3.Exit");
	 System.out.println("\nEnter your choice : ");
	 ch = sc.nextInt();

	 switch(ch)
	 {
	   case 1 :
		 p = new Rectangle();
```

```
                p.getdata();
                p.printarea();
                break;

          case 2 :
                p = new Triangle();
                p.getdata();
                p.printarea();
                break;

          case 3 :
                System.out.println("Exit");
                break;
        }
       }while(ch<3);
       }
}
```

OUTPUT :

```
1.Area of Rectangle
2.Area of Triangle
3.Exit

Enter your choice :
1
Enter Length :
10
Enter Breadth :
5
Area of Rectangle = 50

1.Area of Rectangle
2.Area of Triangle
3.Exit

Enter your choice :
2
Enter Length :
10
Enter Breadth :
20
Area of Triangle = 100.0

1.Area of Rectangle
2.Area of Triangle
3.Exit

Enter your choice :
3
Exit
```