WEEK 2-OOJ LAB PROGRAMES- IN JAVA

Programs and Output

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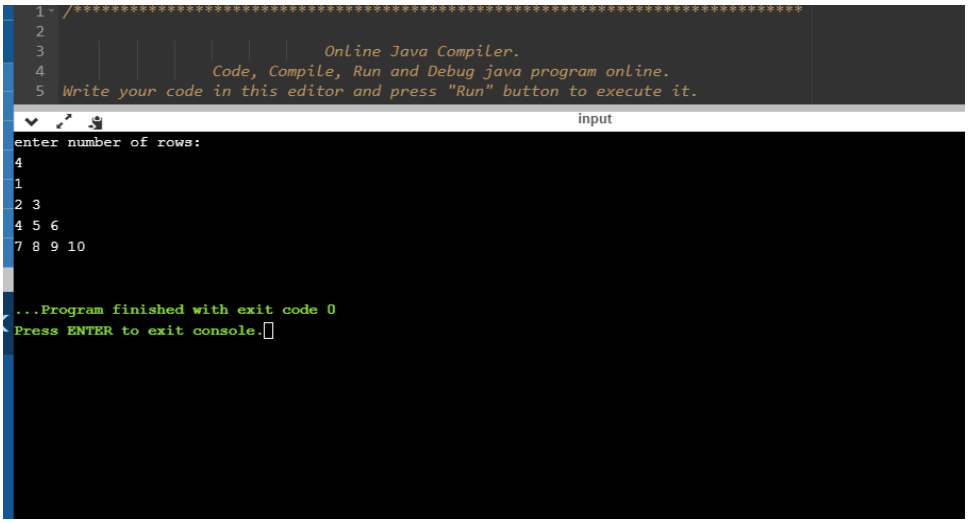
Program 3-

```
import java.util.Scanner;
class Pyramid
{
	public static void main(String args[]) {
		Scanner in=new Scanner(System.in);
		int n,i,j,k=1;
		System.out.println("enter number of rows:");
		n=in.nextInt();
		for(i=1;i<=n;i++)
		{
		   for(j=1;j<=i;j++)
		   {
		      System.out.print(k+" ");
		      k++;
		   }
		   System.out.println();
		}
	}
```

}

Output-

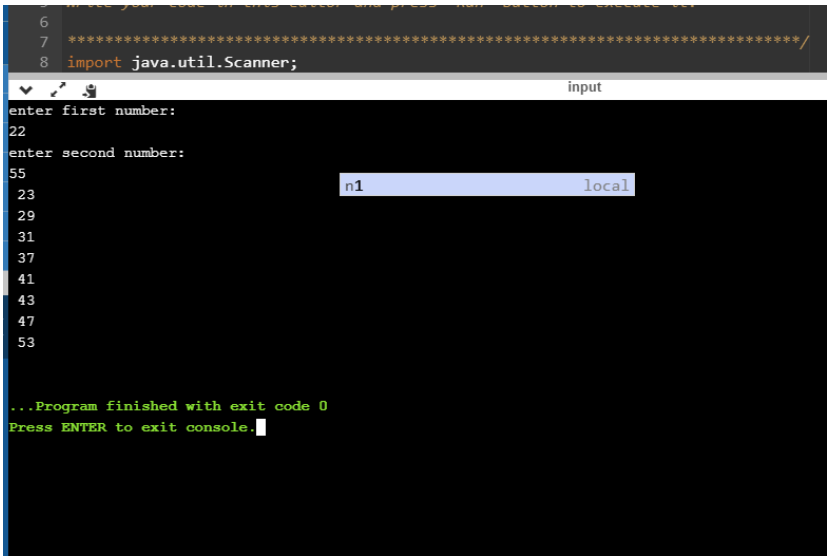


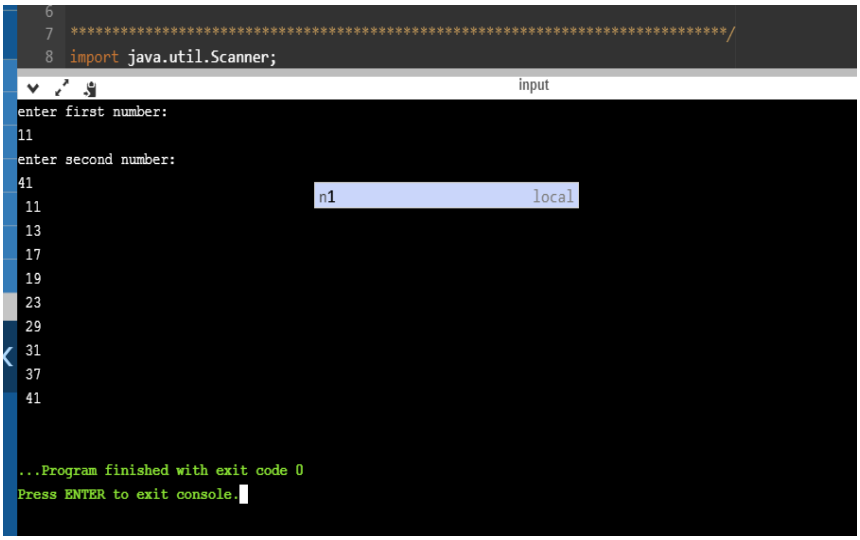
Program 5-

```
import java.util.Scanner;

class Prime

{

        public static void main(String args[]) {

                Scanner in=new Scanner(System.in);

                int n1,n2,i,j,isprime=1;

                System.out.println("enter first number:");

                n1=in.nextInt();

                System.out.println("enter second number:");

                n2=in.nextInt();

                for(i=n1;i<=n2;i++)

                {

                   for(j=2;j<=i/2;j++)
```

```
            {
               isprime=1;
               if(i%j==0)
               {
                  isprime=0;
                  break;
               }
            }
            if(isprime==1)
            {
               System.out.println(" "+i);
            }
         }
      }
}
```

Output-





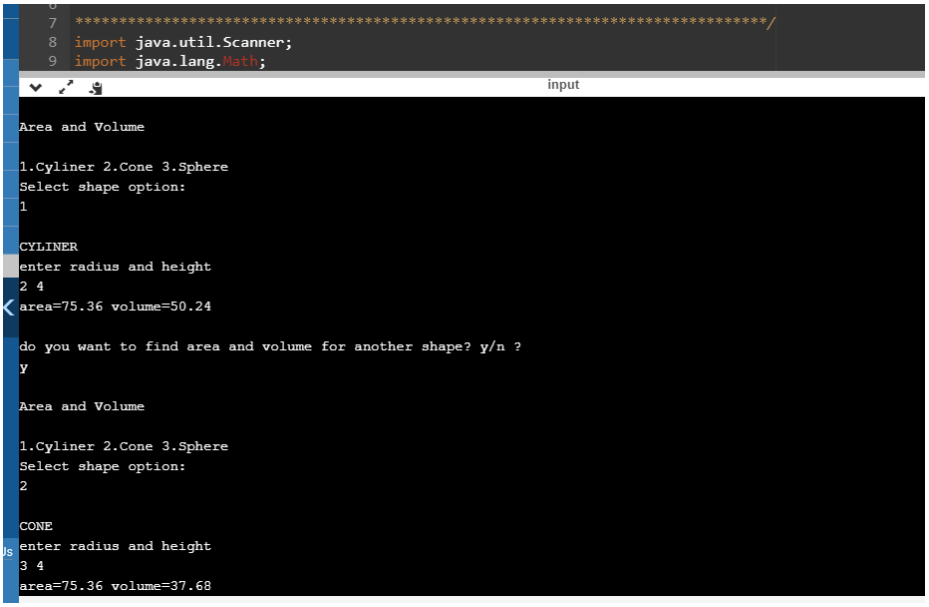
Program 6-

```
import java.util.Scanner;

import java.lang.Math;

class Main

{

        public static void main(String args[]) {

                Scanner in=new Scanner(System.in);

                double r,h,area,vol;

                int opt;

                char ch;

                do

                {

                   System.out.println("\n"+"Area and Volume"+"\n");

                   System.out.println("1.Cyliner"+" "+"2.Cone"+" "+"3.Sphere");

                   System.out.println("Select shape option:");
```

```
opt=in.nextInt();
switch(opt)
{
   case 1:System.out.println("\n"+"CYLINER");
   System.out.println("enter radius and height");
   r=in.nextDouble();
   h=in.nextDouble();
   area=((2*3.14*r*h)+(2*3.14*r*r));
   vol=(3.14*r*r*h);
   System.out.println("area="+area+" "+"volume="+vol);
   break;
  case 2:System.out.println("\n"+"CONE");
   System.out.println("enter radius and height");
   r=in.nextDouble();
   h=in.nextDouble();
   area=((3.14*r)*(r+Math.sqrt(h*h+r*r)));
   vol=((3.14*r*r*h)/3);
   System.out.println("area="+area+" "+"volume="+vol);
   break;
  case 3:System.out.println("\n"+"SPHERE");
   System.out.println("enter radius");
   r=in.nextDouble();
   area=(4*3.14*r*r);
   vol=((4*3.14*r*r*r)/3);
```

```
                System.out.println("area="+area+" "+"volume="+vol);
                break;
               default:System.out.println("invalid input");
            }
            System.out.println("\n"+"do you want to find area and volume for another shape? y/n ?");
            ch=in.next().charAt(0);
        }
        while(ch=='y');
        }
}
```

Output-



```
6
7  ********************************************************************************/
8  import java.util.Scanner;
9  import java.lang.Math;
```

input

```
CONE
enter radius and height
3 4
area=75.36 volume=37.68

do you want to find area and volume for another shape? y/n ?
y

Area and Volume

1.Cyliner 2.Cone 3.Sphere
Select shape option:
3

SPHERE
enter radius
5
area=314.0 volume=523.3333333333334

do you want to find area and volume for another shape? y/n ?
n


...Program finished with exit code 0
Press ENTER to exit console.
```

```
6
7  ********************************************************************************/
8  import java.util.Scanner;
9  import java.lang.Math;
```

input

```
Area and Volume

1.Cyliner 2.Cone 3.Sphere
Select shape option:
1

CYLINER
enter radius and height
1.2 2.4
area=27.129599999999996 volume=10.851839999999997

do you want to find area and volume for another shape? y/n ?
y

Area and Volume

1.Cyliner 2.Cone 3.Sphere
Select shape option:
2

CONE
enter radius and height
3.3 4.1
area=88.73062404649609 volume=46.73262
```

```
6
7  ********************************************************************************/
8  import java.util.Scanner;
9  import java.lang.Math;
```

input

```
CONE
enter radius and height
3.3 4.1
area=88.73062404649609 volume=46.73262

do you want to find area and volume for another shape? y/n ?
y

Area and Volume

1.Cyliner 2.Cone 3.Sphere
Select shape option:
3

SPHERE
enter radius
5.61
area=395.28957600000007 volume=739.1915071200001

do you want to find area and volume for another shape? y/n ?
n


...Program finished with exit code 0
Press ENTER to exit console.
```