1.Find out whether the following file will compile. If it does not compile, how you would fix it?

```
public static void main(String[ ] args) {

    int x = 5;

    while (x > 1) {

      x = x + 1;

      if (x < 3) {

          System.out.println("small x");

      }
      x++;
    }

}
```

OUTPUT:

2.Find out whether the following file will compile. If it does not compile, how you would fix it?

```
class Digit {

    public static void main(String[ ] args) {
```

```
                int x = 1;

                while (x < 10) {
                    x=x+1;
                if (x > 3) {

                System.out.println("big x");

            }

        }

    }

}
```

OUTPUT:

3.Find out whether the following file will compile. If it does not compile, how you would fix it?

```
class Loop {
 int x = 5;
 while (x  > 1) {
   x = x - 1;
if (x < 3) {
System.out.println("small x");
}
 }
}
```

OUTPUT**:** **No changes**

4.Personalize the Hello World program with your name so that it tells you Hello rather than the somewhat generic "World."

OUTPUT:

```
 import java.util. Scanner;
class demo{
public static void main(String [] args){
String name;
Scanner scan=new Scanner(System.in);
Name=scan.nextLine();
System.out.println(“Hello” +name);
```

5.Write a program that produces the following output:

Hello World!

It's been nice knowing you.

Goodbye world!

OUTPUT:

```
class main
  {
    public static void main(String[] args){
    System.out.println("Hello World!" +"\n" + "It's been nice knowing you."+ "\n" + "Goodbye world!");
     }
  }
```

6.Write a program that prints all the integers between zero and 36.

OUTPUT:

class num

```
{
public static void main(String[] args)
{
for(int i=0;i<=36;i++)
{
System.out.println(i);
}
}
}
```

7.What does the following program print?

```
// This is the Hello Rank program in Java

class HelloRank {

    public static void main (String args[ ]) {

            String name = "Rank";
           System.out.println("Hello + name");

            }
}
```

OUTPUT: Hello + name

8.What is wrong with this program?

```
class Hello {

    public static void main (String args[ ]) {

            int i;

            System.out.print("Hello ");
```

```
            i = 0;

                while (i <= args.length) {

               System.out.print(args[i] + " ");

                i = i + 1;

                }
      System.out.println();
       }
}
```

OUTPUT:

This program shows an error has ArrayIndexOutOfBoundsException hence,

while(i<args.length)-->Hello

9.What is the output of the following program?

```
import java.util.*;
public class Area {
     public static void main(String[ ] args){
        double a;
   double r;
   final double pi = Math.PI;

   r = 1.0;
   a = pi * r * r;
   display(r,a);
```

```
    r = 1.5;
    a = pi * r * r;
    display(r,a);

    r = 2.0;
     a = pi * r * r;
    display(r,a);
     }//end main
     //----------------------------------------//
     static void display(double r, double a){
         System.out.println("For radius = " + r +
                            ", area = " + a);
     }//end print
}//end Area class
```

OUTPUT:

For radius=1.0,area=3.141592653589793

For radius=1.5,area=7.0685834705770345

For radius=2.0,area=12.566370614359172

10.Problem Statement:

There are exactly 2.54 centimeters to an inch. Write a program that takes a number of inches from the command line and converts it to centimeters.

OUTPUT:

```
import java.util.Scanner;
class converts{
public static void main(Strings[] args){
float n;
Scanner scan=new Scanner(System.in);
```

```
n=scan.nextInt();
float val=n*2.54f;
System.out.println(val);
}
}
```

11.Write a program that reads two numbers from the command line, the number of hours worked by an employee and their base pay rate. Then output the total pay due

OUTPUT:

```
import java.util.Scanner;
class pay{
public static void main(Strings[] args){
int hr,basepay;
Scanner scan=new Scanner(System.in);
hr=scan.nextInt();
basepay=scan.nextInt();
int totalpay=hr*basepay;
System.out.println(totalpay);
}
}
```

12.ass Hexy {

```
public static void main (String[] args)    {
 Integer i = 42;
 String s = (i<40)?"life"sadi>50)?"universe":"everything";
 System.out.println(s);
    }
}
```

OUTPUT: **Everything**

13. Program to print a pattern:

Program:

```
import java.util.Scanner;


public class star {


       public static void main(String[] args)
        int i,j,row,col;
       Scanner scan=new Scanner(System.in);
        row=scan.nextInt();
         col=scan.nextInt();
       for(i=1;i<=row;i++)
  {
          for(j=1;j<=col;j++)
          {
                    System.out.print("*");
  }
          System.out.println();
  }
  }
}
```

OUTPUT:

```
* * * * *
* * * * *
* * * * *
* * * * *
```

14.Program to print pyramid pattern:-

Program:

```
public class star{
public static void main(String[] args){
```

```
int i,j,row=4;
for(i=1;i<=row;i++)
  {
  for(j=row;j>=1;j--)
    {
     if(j>i)
       {
       System.out.print(" ");
       }
     else
     {
     System.out.print(" *");
     }
   }
     System.out.println();
}
 }
}
```

OUTPUT:

```
    *
   * *
  * * *
 * * * *
```