1: write program to test Hello World.

```java
// import java.util.Scanner;
// 1:Write a program to print hello world .
class ass_1
{
    Run | Debug
    public static void main(String[] args) {
        System.err.println(x:"...Hello World...");

    }
}
```

2:Write a program to adddition of two numbers .

```java
import java.util.Scanner;
class ass1_2{
    Run | Debug
    public static void main(String[] args){
        int n1;
        int n2,sum;
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"Enter number1:");
        n1=scn.nextInt();
        System.out.println(x:"Enter Number2:");
        n2=scn.nextInt();
        sum=n1+n2;
        System.out.println(":Sum is :"+sum);
    }
}
```

3:Write a program to swap two numbers.

```java
import java.util.Scanner;
class ass1_3{
    Run | Debug
    public static void main(String[] args){
        int n1;
        int n2;
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"Enter number1:");
        n1=scn.nextInt();
        System.out.println(x:"Enter Number2:");
        n2=scn.nextInt();
        System.out.println("Before swap n1="+n1+"and n2="+n2);
        n1=n1+n2;
        n2=n1-n2;
        n1=n1-n2;
        //System.out.println("The n1="+n1+"& n2="+n2+" after swap ");
        System.out.println("After swapping: n1 = " + n1 + " n2 = " + n2);
    }
}
```

4. Write a program to accept an integer and check if it is even or odd.

ass1_4.java > ass1_4 > main(String[])

```java
//4. Write a program to accept an integer and check if it is even or odd.
import java.util.Scanner;
class ass1_4{
    Run | Debug
    public static void main(String[] args){
        int n1;
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"Enter number1:");
        n1=scn.nextInt();
        if(n1%2==0)
            System.out.println(x:"even");
        else
            System.out.println(x:"odd");
    }
}
```

5. Write a program to accept a number and check if it is divisible by 5 and 7.

ass1_5.java > ass1_5 > main(String[])

```java
//5. Write a program to accept a number and check if it is divisible by 5 and 7.
import java.util.Scanner;
class ass1_5{
    Run | Debug
    public static void main(String[] args){
        int n1;
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"Enter number1:");
        n1=scn.nextInt();
        if(n1%5==0 & n1%7==0)
            System.out.println(x:"divisible");
        else
            System.out.println(x:"not divisible");
    }
}
```

6. Write a program, which accepts annual basic salary of an employee and calculates and displays the
Income tax as per the following rules.
Basic: < 1, 50,000 Tax = 0
1, 50,000 to 3,00,000 Tax = 20%
> 3,00,000 Tax = 30%

```java
class ass1_6{
    Run | Debug
    public static void main(String[] args){
        double sal;
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"please enter you salary:");
        sal=scn.nextInt();
        if(sal<150000)
        System.out.println(x:"Tax is 0");
        else if(sal>150000 && sal<=300000)
        System.out.println("Tax is 20%..."+(0.2*sal));
        else if(sal>300000)
        System.out.println("Tax is 30%..."+(0.3*sal));
    }
}
```

7. Accept a lowercase character from the user and check whether the character is a vowel or consonant.
(Hint: a, e, i, o, u are vowels)

```java
import java.util.Scanner;
class ass1_7{
    Run | Debug
    public static void main(String[] args){
        Scanner scn=new Scanner(System.in);
        System.out.println(x:"Enter charecter::");
        char alpha=scn.next().charAt(index:0);
        if(alpha=='a' || alpha=='e' || alpha=='i' || alpha=='o' || alpha=='u')
            System.out.println(x:"vowel");
        else
            System.out.println(x:"Consonant");
    }
}
```

8. Write a C program to input angles of a triangle and check whether triangle is valid or not.

```java
import java.util.Scanner;
class ass1_8{
    Run | Debug
    public static void main(String[] args){
        Scanner scn=new Scanner(System.in);
        float side1,side2,side3;
        System.out.println(x:"Enter side1 of triangle:");
        side1=scn.nextFloat();
        System.out.println(x:"Enter side2 of triangle:");
        side2=scn.nextFloat();
        System.out.println(x:"Enter side3 of triangle:");
        side3=scn.nextFloat();
        float add=side1+side2;
        if((side1+side2)>=side3 & (side2+side3)>=side1 & (side3+side1)>=side2)
        System.out.println(x:"Triangle");
        else
        System.out.println(x:"Not a triangle");
```

9:Write a program to find factorial of a given number. ex:no5 fact=5*4*3*2*1=120

```java
import java.util.Scanner;
class ass1_9{
    Run | Debug
    public static void main(String args[]){
    int i,fact=1;
    Scanner scn=new Scanner(System.in);
    int number;
    System.out.println(x:"Enter a number:");
    number=scn.nextInt();
    for(i=1;i<=number;i++){
        fact=fact*i;
    }
    System.out.println("Factorial of "+number+" is: "+fact);
    }
   }
```

10:Write a program to find m to the power n. m=3 and n=4 so 3*3*3*3

```java
class ass1_10{
    Run | Debug
    public static void main(String[] args){
        Scanner scn=new Scanner(System.in);
        int num,power;
        System.out.println(x:"Enter number:");
        num=scn.nextInt();
        System.out.println(x:"Enter the power:");
        power=scn.nextInt();
        int result=1;
        while (power != 0) {
            result=result* num;
            --power;
        }
        System.out.println(result);
    }
```

11:Check if number is a prime number or not.:

```java
import java.util.Scanner;
class ass1_11{
    Run | Debug
    public static void main(String[] args){
        Scanner scn=new Scanner(System.in);
        int num;
        System.out.println(x:"Enter a number to check prime number:");
        num=scn.nextInt();
        for(int i=2;i<=num;i++){
            if(num%i==0){
                System.out.println(x:"not prime");
            }
            else
                System.out.println(x:"prime");
                break;
        }
```

12:Sum of series :

1+2+3+….+n

13:Check whether the number is palindrome or not?

```java
class ass1_13{
    Run | Debug
    public static void main(String[] agrs){
        Scanner scn=new Scanner(System.in);
        int num;
        System.out.println(x:"Enter a number:");
        num=scn.nextInt();
        int temp=num;
        int rev=0;
        while(num>0){
            rev=rev*10+num%10;
            num=num/10;
        }
        System.out.println("temp:"+temp);
        if(temp==rev)
            System.out.println(x:"Palindrome");
        else
            System.out.println(x:"Not Palindrome");
```

14:Write a program to find sum of all even and odd numbers between 1 to n.

```java
import java.util.Scanner;
class ass1_14{
    Run | Debug
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        int evensum = 0;
        int oddsum = 0;
        System.out.println(x:"Enter a number::");
        int num=sc.nextInt();
        for(int i=0; i<=num ;i++){
            if(i%2==0)
                evensum+=i;
            else
                oddsum+=i;

        }
    System.out.println("evensum"+evensum);
    System.out.println("oddsum"+oddsum);
```

15: Write a program to enter a number and print its reverse.

```java
//15: Write a  program to enter a number and print its reverse.
import java.util.Scanner;
class ass1_15{
    Run | Debug
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println(x:"Enter a number");
        int num=sc.nextInt();
        int temp=num;
        int rev=0;
        while(num>0){
            rev=rev*10+num%10;
            num=num/10;

        }
        System.out.println("Number before reverse:"+temp);
        System.out.println("Number after reverse:"+rev);
    }
```

16:Write a program to print all Prime numbers between 1 to n.

```java
class ass1_16{
    Run | Debug
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println(x:"Enter a number:");
        int num=sc.nextInt();
        int i=2;
        while(i<(num/2+1)){
            if(num%2!=0){
                System.out.println("prime");
                break;

            }
            else
                System.out.println("Not prime");
                i=i+1;
                break;
        }
```

17:Write a program to check entered number is Armstrong number or not.

```java
public static void main(String[] args){
    Scanner sc=new Scanner(System.in);
    System.out.println(x:"Enter a number to check armstrong number:");
    int num=sc.nextInt();
    int temp=num;
    int sum=0;
    while(num>0){
        int digit=num%10;
        sum=(digit*digit*digit)+sum;
        num/=10;
    }
    if(sum==temp){
        System.out.println(x:"armstrong");

    }
    else
        System.out.println(x:"not");
```

```java
import java.util.Scanner;
class ass1_17_1{
    Run | Debug
    public static void main(String[] args){
    Scanner sc=new Scanner(System.in);
    System.out.println(x:"Enter limit");
    String no=sc.next();
    int len=no.length();
    System.out.println(len);
    int num=Integer.parseInt(no);
    int temp=num;
    int sum=0;
    while(num>0) {
    int digit=num%10;
    sum=(int)(Math.pow(digit,len))+sum;
    num/=10;
    }
    if(sum==temp)
    System.out.println(x:"armstrong");
    else
    System.out.println(x:"not armstrong");
    }
}
```

18:Write a program to find greatest of three numbers using nested if-else.

```java
class ass1_18{
    Run | Debug
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println(x:"Enter n1:");
        int n1=sc.nextInt();
        System.out.println(x:"Enter n2:");
        int n2=sc.nextInt();
        System.out.println(x:"Enter n3:");
        int n3=sc.nextInt();
        if(n1>n2){
            if(n1>n3)
                System.out.println("n1 is greater:"+n1);
            else
                System.out.println("n3 is greater:"+n3);

        }
        else
            if(n2>n3)
                System.out.println("n2 is greater:"+n2);
            else
                System.out.println("n3 is greater:"+n3);
```

19:Create menu driven program for Pizza Shop.And display total amount,

```
import java.util.Scanner;

public class ass1_19 {

    public static void main(String[] args) {
        System.out.println("1:Paneer pizza 2:Peparoni pizza 3:Chilli
cheese 4:Farm house 5:Corn pizza 6:exit");
        int total = 0;
        int ch, qty;
        Scanner sc = new Scanner(System.in);

        do {
            System.out.println("enter Choice");
            ch = sc.nextInt();

            switch (ch) {
            case 1:
                System.out.println("Enter Qty for Paneer pizza");
                qty = sc.nextInt();
                total += qty * 250;
                break;
            case 2:
                System.out.println("Enter Qty for Peparoni pizza");
                qty = sc.nextInt();
                total += qty * 300;
                break;
            case 3:
                System.out.println("Enter Qty for Chilli cheese");
                qty = sc.nextInt();
                total += qty * 192;
                break;
            case 4:
                System.out.println("Enter Qty for Farm house");
                qty = sc.nextInt();
                total += qty * 350;
```

```
                break;
            case 5:
                System.out.println("Enter Qty for Corn pizza");
                qty = sc.nextInt();
                total += qty * 90;
                break;
            default:
                break;
            }

        } while (ch != 6);

        System.out.println("Total:" + total);
        System.out.println("----Thank You----");
    }

}
```

20:Accept a single digit from the user and display it in words. For example, if digit entered is 9, display Nine.

```
import java.util.Scanner;
class ass1_20{
    Run | Debug
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println(x:"Enter a digit");
        int num=sc.nextInt();
        switch (num){
            case 0:
                System.out.println(x:"Zero");
                break;
            case 1:
                System.out.println(x:"one");
                break;
            case 2:
                System.out.println(x:"two");
                break;
            case 3:
                System.out.println(x:"three");
                break;
            case 4:
                System.out.println(x:"four");
                break;
            case 5:
                System.out.println(x:"five");
                break;
            case 6:
                System.out.println(x:"six");
                break;
            case 7:
                System.out.println(x:"seven");
                break;
            case 8:
                System.out.println(x:"eight");
                break;
            case 9:
                System.out.println(x:"nine");
                break;
            default:
                System.out.println(x:"Enter valid number..Thank you");

        }

    }
}
```

21. Write a program, which accepts two integers and an operator as a character (+ - * /), performs the
corresponding operation and displays the result.

```
class ass1_20{
    public static void main (String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println(x:"Enter first number:");
        int num1=sc.nextInt();
        System.out.println(x:"Enter second number:");
        int num2=sc.nextInt();
        System.out.println(x:"Enter your choice: 1.for addition(+)    2.for substraction(-)    3.for multiplication(*
        int choice=sc.nextInt();
        switch (choice){
            case 1:
            System.out.println("Addition of two numbers num1:"+num1+" and num2:"+num2+" is:"+(num1+num2));
            break;
            case 2:
            System.out.println("Substraction of two numbers num1:"+num1+" and num2:"+num2+" is:"+(num1-num2));
            break;
            case 3:
            System.out.println("Multiplication of two numbers num1:"+num1+" and num2:"+num2+" is:"+(num1*num2));
            break;
            case 4:
            System.out.println("Division of two numbers num1:"+num1+" and num2:"+num2+" is:"+(num1/num2));
            break;
            default:
            System.out.println(x:"Invalid choice");
            break;
```