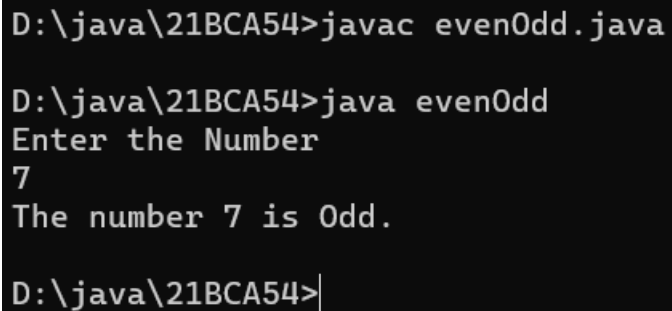


**Program 1**

**Write a program to take command line input and check number is odd or even.**

**Code:**

```
import java.util.*;
Class evenOdd{
    Public static void main(String args[]){
        Int a;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the number:");
        a=s.nextInt();
        if (a%2==0){
            System.out.println("The number "+ a +" is Even.");
        }
        else{
            System.out.println("The number "+ a +" is Odd.");
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac evenOdd.java
D:\java\21BCA54>java evenOdd
Enter the Number
7
The number 7 is Odd.
D:\java\21BCA54>|
```

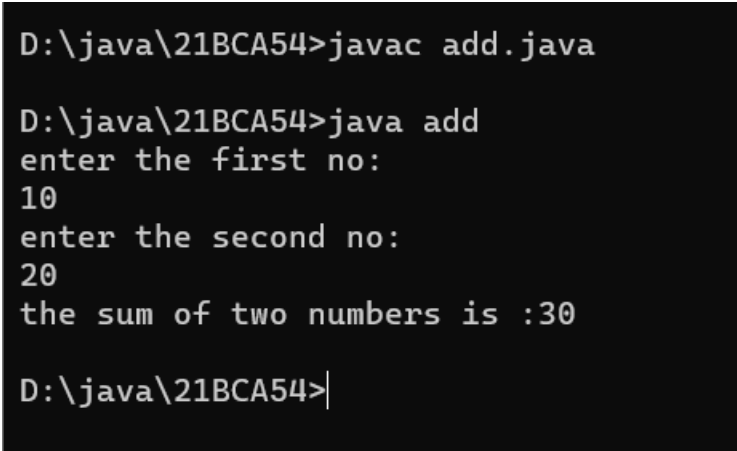
**Program 2**

**Write a program to take command line input and sum of 2 number.**

**Code:**

```
import java.util.*;
class add{
    public static void main(String args[]){
        int a,b;
        Scanner s=new Scanner (system.in);
        System.out.println("enter the first no:");
        a=S.nextint();
        system.out.println("enter the second no:");
        b=s.nextint();
        System.out.println("the sum of two numbers is :"+(a+b));
    }
}
```

Output:



```
D:\java\21BCA54>javac add.java

D:\java\21BCA54>java add
enter the first no:
10
enter the second no:
20
the sum of two numbers is :30

D:\java\21BCA54>|
```

### Program 3

**Write a program to take command line input and calculate a Simple Interest.**

**Code:**

```
import java.util.*;
class SimpleIntrest{
    public static void main(String args[]){
        Scanner s=new Scanner (System.in);
        System.out.println("Enter the Principal balance:");
        p=s.nextInt();
        System.out.println("Enter the Rate of interst:");
        r=s.nextInt();
        System.out.println("Enter the the number of times interest
compounds in a year :");
        n=s.nextInt();
        double result=((p*r*n)/100);
        System.out.println("The Simple intrest is:"+ result);
    }
}
```

**Output:**

```
D:\java\21BCA54>javac SimpleIntrest.java

D:\java\21BCA54>java SimpleIntrest
Enter the Principal balance:
400
Enter the Rate of interst:
5
Enter the the number of times interest compounds in a year :
2
The Simple intrest is:40.0

D:\java\21BCA54>
```

**Program 4**

**Write a Program to take command line input and Check Number is Positive or Negative.**

**Code:**

```
import java.util.*;
class positiveORnegative{
    public static void main(String args[]){
        int a;
        Scanner s=new Scanner (System.in);
        System.out.println("Enter the no to check the number is positive or
negative:");
        n=s.nextInt();
        if (a<0){
            System.out.println("The Number is Negative.");
        }
        else{
            System.out.println("The Number is Positive.");
        }
    }
}
```

**Output:**

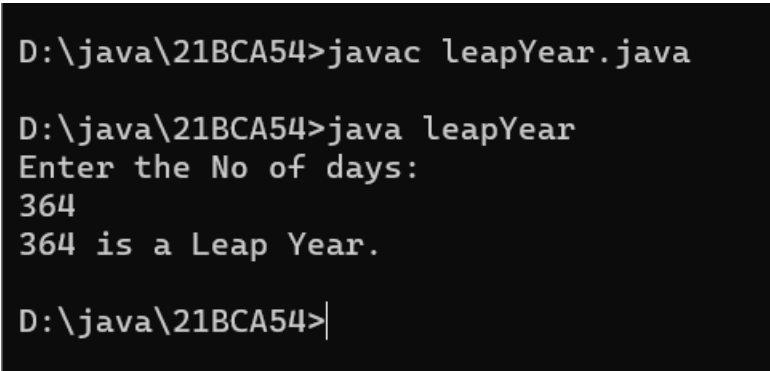
```
D:\java\21BCA54>javac positiveORnegative.java
D:\java\21BCA54>java positiveORnegative
Enter the no to check the number is positive or negative:
-8
The Number is Negative.
D:\java\21BCA54>|
```

**Program 5**

**Write a Program to take command line input and Check Year is Leap Year or Not.**

**Code:**

```
import java.util.*;
class leapYear{
    public static void main(String args[]){
        int year;
        Scanner s=new Scanner (System.in);
        System.out.println("Enter the No of days:");
        a=s.nextInt();
        if(year % 400==0){
            System.out.println(year+" is a Leap Year.");
        }
        else if(year % 100==0){
            System.out.println(year+" is not a Leap Year.");
        }
        else if(year % 4==0){
            System.out.println(year+" is a Leap Year.");
        }
        else{
            System.out.println(year+" is not a Leap Year.");
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac leapYear.java

D:\java\21BCA54>java leapYear
Enter the No of days:
364
364 is a Leap Year.

D:\java\21BCA54>|
```

**Program 6**

**Write a program to take command line input and find the Character Is Vowel or Not.**

**Code:**

```
import java.util.*;
class WovelORnot{
    public static void main(String args[]){
        Scanner s=new Scanner(System.in);
        System.out.println("Enter any character:");
        char c;
        c=s.next().charAt(0);

        if(c=='a' || c=='A' || c=='e' || c=='E' || c=='i' || c=='I' || c=='o' || c=='O' || c=='u' || c=='U'){
            System.out.println("The "+c+" is Vowel.");
        }
        else{
            System.out.println("The "+c+" is Vowel.");
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac WovelORnot.java

D:\java\21BCA54>java WovelORnot
Enter any character:
I
The I is Vowel.

D:\java\21BCA54>|
```

**Program 7**

**Write a program to reverse a given number using while loop.**

**Code:**

```
import java.util.*;
class reverseWhile{
    public static void main(String args[]){
        int a,n,b=0;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the Number:");
        a=s.nextInt();
        int i=a;
        while(a!=0){
            N=a%10;
            B=b*10+n;
            A=a/10;
        }
        System.out.println(b);
    }
}
```

**Output:**

```
D:\java\21BCA54>javac reverseWhile.java

D:\java\21BCA54>java reverseWhile
Enter the Number:
123456
654321

D:\java\21BCA54>|
```

**Program 8**

**Write a program to reverse a given number using for loop.**

**Code:**

```
import java.util.*;
class reverseFor{

    public static void main(String args[]){
        int a,n,b=0;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the Number:");
        a=s.nextInt();
        for(int i=0;a!=0;i++){
            N=a%10;
            B=b*10+n;
            A=a/10;
        }
        System.out.println(b);
    }
}
```

**Output:**

```
D:\java\21BCA54>javac reverseFor.java

D:\java\21BCA54>java reverseFor
Enter the Number:
654321
123456

D:\java\21BCA54>|
```



**Program 9**

**Write a program to check number is Armstrong or Not.**

```
Import java.util.*;
```

```
class Armstrong{
```

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

```
        Scanner s=new Scanner(System.in);
```

```
        System.out.println("Enter the Number:");
```

```
        A=s.nextInt();
```

```
        Int r,re=0;
```

```
        Int o=n;
```

```
        For(int i=n;i!=0;i++){
```

```
            R=n % 10;
```

```
            Re=(r*r*r);
```

```
            N=(n/10);
```

```
        }
```

```
        If(re==n)
```

```
            System.out.println(o+" is an Armstrong Number.");
```

```
        Else
```

```
            System.out.println(o+" is not an Armstrong Number.");
```

```
        }
```

```
    }
```

**Output:**

```
D:\java\21BCA54>javac Armstrong.java

D:\java\21BCA54>java Armstrong
Enter the number:
353
353 is an Armstrong Number.

D:\java\21BCA54>|
```

**Program 10**

**Write a to check number is Prime number or not.**

```
Import java.util.*;
```

```
Class primeNo{
```

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

```
        Int m=0,f=0,a;
```

```
        Scanner s=new Scanner(System.in);
```

```
        System.out.println("Enter the Number:");
```

```
        A=s.nextInt();
```

```
        M=a/2;
```

```
        If(a==0||a==1){
```

```
            System.out.println(a+" is not prime number.");
```

```
        }
```

```
        Else{
```

```
            For(int i=2;i<=m;i++){
```

```
                If(a%i==0){
```

```
                    System.out.println(a+" is not prime  
number.");
```

```
                F=1;
```

```
                break;
```

```
        }  
    }  
    If(f==0){  
        System.out.println(a+" is prime number.");  
    }  
}  
}
```

**Output:**

```
D:\java\21BCA54>javac primeNo.java
```

```
D:\java\21BCA54>java primeNo
```

```
Enter the number:
```

```
30
```

```
30 is not prime number.
```

```
D:\java\21BCA54>
```

**Program 11**

**Write a program to check given string is Palindrome or not**

**Code:**

```
import java.util.*;
class PalindromeString{
    public static void main(String args[]){
        Scanner s=new Scanner(System.in);
        String r="";
        System.out.println("Enter the String:");
        String Name=s.next();
        int a=Name.length();
        for(int i=(a-1);i>=0;--i){
            r=r+Name.charAt(i);
        }
        if (Name.toLowerCase().equals(r.toLowerCase())){
            System.out.println("String is palindrome.");
        }
        else{
            System.out.println("String not is palindrome.");
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac PalindromeString.java
D:\java\21BCA54>java PalindromeString
Enter the String:
Naman
String is palindrome.
D:\java\21BCA54>|
```

**Program 12**

**Write a program in java to display the pattern like right angle triangle using an asterisk.**

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

```
import java.util.*;
class pattern{
    public static void main(String args[]){
        int a;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter number to Print pattern until You want
to print:");
        a=s.nextInt();

        for(int i=0;i<a;i++)
        {
            for(int j=0;j<i;j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }

    }
}
```

**Output:**

```
D:\java\21BCA54>javac pattern.java

D:\java\21BCA54>java pattern
Enter number to Print pattern until You want to print:
6

*
**
***
****
*****

D:\java\21BCA54>|
```

**Program 13**

**Write a program in java to make such a pattern like a pyramid with numbers increased**

**by 1.**

**1**

**2 3**

**4 5 6**

**7 8 9 10**

```
import java.util.*;
class NumPattern{
    public static void main(String args[]){
        int a;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter number to Print pattern until You want to
print:");
        a=s.nextInt();
        int m=a;
        int n=1;
        for(int i=0;i<a;i++){
            for(int j=0;j<m-1;j++){
                System.out.print(" ");
            }
            for(int k=1;k<=2*i-1;k+=2){
                System.out.print(n+" ");
                n++;
            }
            m--;
            System.out.println();
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac NumPattern.java

D:\java\21BCA54>java NumPattern
Enter number to Print pattern until You want to print:
6

    1
   2 3
  4 5 6
 7 8 9 10
11 12 13 14 15

D:\java\21BCA54>
```



**Program 14**

**Write a C Program to display the pattern using the alphabet.**

**A B C D E**  
**A B C D**  
**A B C**  
**A B**  
**A**

```
import java.util.*;
class AbcPattern{
    public static void main(String args[]){
        int a;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter number to Print pattern until You want
to print:");
        a=s.nextInt();
        for(int i=0;i<a;i++)
        {
            for(int j=i,p='A';j<a;j++,p++)
            {
                System.out.print((char)p);
            }
            System.out.println();
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac AbcPattern.java

D:\java\21BCA54>java AbcPattern
Enter number to Print pattern until You want to print:
6
A B C D E
A B C D
A B C
A B
A
```

D:\java\21BCA54>

**Program 15**

**Write a program to take command line input and print factorial of given number.**

```
//factriol=4!
Import java.util.*;
class factorial{
    public static void main(String args[]){
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the Number:");
        int a=s.nextInt();
        int c=1;
        for(int i=a;i>=1;--i){
            c=c*i;
        }
        System.out.println("The Factorial of is:"+c);
    }
}
```

**Output:**

```
D:\java\21BCA54>javac factorial.java

D:\java\21BCA54>java factorial
Enter the num to check factorial or not:
5
The Factorial of  is:120

D:\java\21BCA54>|
```

**Program 16****Write a program to display Fibonacci series.**

```
class fibonaccisirise{
    public static void main(String args[]){
        int n,next=0;
        s=new Scanner(System.in);
        System.out.println("Enter the Number:");
        n=s.nextInt();
        int f=0,s=1;
        System.out.println("Fibonacci Series till "+n+" terms:");
        for(int i=1;i<=n;++i){
            System.out.println(f+",\n ");
            next=f+s;
            f=s;
            s=next;
            if(f>n){
                break;
            }
        }
    }
}
```

**Output:**

```
D:\java\21BCA54>javac fibonaccisirise.java
D:\java\21BCA54>java fibonaccisirise
Enter the num:
8
Fibonacci Series till 8 terms:0, 1, 1, 2, 3, 5, 8,
D:\java\21BCA54>
```