



JOURNAL-01

21BCA90

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

```
import java.util.Scanner;

class PRG_01
{
    public static void main(String [] args)
    {
        int A;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter any No. : ");
        A = sc.nextInt();
        if(A%2==0)
            System.out.println("The value "+A+" is even.");
        else
            System.out.println("The value "+A+" is odd.");
    }
}
```

Output :

Enter any No. : 15

The value 15 is odd.

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

```
import java.util.Scanner;
class PRG_02
{
    public static void main(String args[])
    {
        int x, y, sum;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the first No. : ");
        x = sc.nextInt();
        System.out.print("Enter the second No. : ");
        y = sc.nextInt();
        sum = sum(x, y);
        System.out.println("The sum of two numbers x and y is: " + sum);
    }
    public static int sum(int a, int b)
    {
        int sum = a + b;
        return sum;
    }
}
```

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Output :

Enter the first No. : 12

Enter the second No. : 12

The sum of two numbers x and y is: 24

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

```
import java.util.Scanner;
class PRG_03
{
    public static void main (String args[])
    {
        float p, r, n, si;
        Scanner s=new Scanner(System.in);
        System.out.print("Enter Value For Princip Amount :");
        p=s.nextFloat();
        System.out.print("Enter Value For Number Of Month :");
        n=s.nextFloat();
        System.out.print("Enter Value For Rate :");
        r=s.nextFloat();
        si = (p*r*n)/100;
        System.out.println("Simple Interest is : " +si);
    }
}
```

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}

Output :

Enter Value For Princip Amount :100000

Enter Value For Number Of Month :12

Enter Value For Rate :2

Simple Interest is : 24000.0

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

```
import java.util.Scanner;

class PRG_04
{
    public static void main(String [] a)
    {
        int b;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter any No. : ");
        b = sc.nextInt();
        if(b>0)
        {
            System.out.println(b+" is Positive.");
        }
    }
}
```

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```
        else
        {
            System.out.println(b+" is Nageitive.");
        }
    }
}
```

Output :

Enter any No. : 5

5 is Positive.

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

```
import java.util.Scanner;
class PRG_05
{
    public static void main(String[] args)
    {
        int year;
        boolean leap = false;
        Scanner s=new Scanner(System.in);
        System.out.print("Enter any year : ");
        year=s.nextInt();
```

```
    if (year % 4 == 0)
    {
        if (year % 100 == 0)
        {
            if (year % 400 == 0)
                leap = true;
            else
                leap = false;
        }
        else
            leap = true;
    }
    else
        leap = false;
    if (leap)
        System.out.println(year + " is a leap year.");
    else
        System.out.println(year + " is not a leap year.");
}
```

Output :

Enter any year : 2015

2015 is not a leap year.

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

```
import java.util.Scanner;
class PRG_06
{
    public static void main(String [] args)
    {
        char a;
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter any Character :");
        a = sc.next().charAt(0);
        if(a == 'a' || a == 'e' || a == 'i' || a == 'o' || a == 'u' || a == 'A' || a ==
'E' || a == 'I' || a == 'O' || a == 'U' )
            System.out.println(a +" is vowel");
        else
            System.out.println(a+ " is consonant");
    }
}
```

Output :

Enter any Character :o

o is vowel

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

```
import java.util.Scanner;
class PRG_07
{
    public static void main(String[] args)
    {
        int n , r = 0;
        System.out.print("Enter any No. to reverse : ");
        Scanner sc = new Scanner(System.in);
        n = sc.nextInt();
        while(n != 0)
        {
            int re = n % 10;
            r = r * 10 + re;
            n = n/10;
        }
        System.out.println("The reverse of the given number is : " + r);
    }
}
```

Output :

Enter any No. to reverse : 123

The reverse of the given number is : 321

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

```
import java.util.Scanner;
class PRG_08
{
    public static void main(String[] args)
    {
        int n,i,r = 0;
        System.out.print("Enter any No. to reverse : ");
        Scanner sc = new Scanner(System.in);
        n = sc.nextInt();
        for(i=1;n!=0;i++)
        {
            int re = n % 10;
            r = r * 10 + re;
            n = n/10;
        }
        System.out.println("The reverse of the given number is : " + r);
    }
}
```

Output :

Enter any No. to reverse : 456

The reverse of the given number is : 654

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

```
import java.util.Scanner;

class PRG_09
{
    public static void main(String[] args)
    {
        int n, oN, r, re = 0;

        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the No. : ");
        n = sc.nextInt();

        oN = n;
        while (oN != 0)
        {
            r = oN % 10;
            re += Math.pow(r, 3);
            oN /= 10;
        }
        if(re == n)
            System.out.println(n + " is an Armstrong number.");
        else
            System.out.println(n + " is not an Armstrong number.");
    }
}
```

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Output :

Enter the No. : 153

153 is an Armstrong number.

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

```
import java.util.Scanner;

public class PRG_10
{
    public static void main(String args[])
    {
        int i,n,m=0,flag=0;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter any No. : ");
        n = sc.nextInt();
        m=n/2;
        if(n==0 || n==1)
        {
            System.out.println(n+" is not prime number");
        }
        else
        {
            for(i=2;i<=m;i++)
            {
                if(n%i==0)
```

```
        {  
            System.out.println(n+" is not prime number");  
            flag=1;  
            break;  
        }  
    }  
    if(flag==0)  
    {  
        System.out.println(n+" is prime number");  
    }  
}  
}
```

Output :

Enter any No. : 17

17 is prime number

11. Write a program to check given string is Palindrome or not

```
import java.util.Scanner;  
class PRG_11  
{  
    public static void main(String[] args)  
    {
```

```
Scanner sc=new Scanner(System.in);
String str, reverseStr = "";
System.out.print("Enter any string :");
str = sc.nextLine();
int strLength = str.length();
for (int i = (strLength - 1); i >=0; --i)
{
    reverseStr = reverseStr + str.charAt(i);
}
if (str.toLowerCase().equals(reverseStr.toLowerCase()))
{
    System.out.println(str + " is a Palindrome String.");
}
else
{
    System.out.println(str + " is not a Palindrome String.");
}
}
```

Output :

```
Enter any string :naman
naman is a Palindrome String.
```

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

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

```
import java.util.Scanner;  
class PRG_12  
{  
    public static void main(String [] args)  
    {  
        int i,a,b=0;  
        Scanner sc=new Scanner(System.in);  
        System.out.print("Enter any No. : ");  
        a = sc.nextInt();  
        for(b=1;b<=a;b++)  
        {  
            for(i=1;i<=b;i++)  
            {  
                System.out.print(" * ");  
            }  
            System.out.println("\n");  
        }  
    }  
}
```

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```
    }  
}
```

Output :

Enter any No. : 5

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

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.Scanner;  
class PRG_13  
{  
    public static void main(String [] args)  
    {  
        int i,a,b,n=1;
```



```
Scanner sc=new Scanner(System.in);
System.out.print("Enter any No. : ");
a = sc.nextInt();
for(b=1;b<=a;b++)
{
    for(i=1;i<=a;i++)
    {
        if((b+i)<=a)
        {
            System.out.print(" ");
        }
        else
        {
            System.out.print(n+" ");
            n++;
        }
    }
    System.out.println("\n");
}
}
```

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Output :

Enter any No. : 4

```
1
2 3
4 5 6
7 8 9 10
```

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.Scanner;
class PRG_14
{
    public static void main(String [] args)
    {
        int i,a,b=0;
        char c;
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter any No. : ");
```

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```
a = sc.nextInt();
for(b=a;b>=1;b--)
{
    c='A';
    for(i=1;i<=b;i++)
    {
        System.out.print(c+" ");
        c++;
    }
    System.out.println("\n");
}
}
```

Output :

Enter any No. : 5

A B C D E

A B C D

A B C

A B

A

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

```
import java.util.Scanner;
class PRG_15
{
    public static void main(String args[])
    {
        int n, c, f = 1;
        System.out.print("Enter an integer to calculate its factorial : ");
        Scanner in = new Scanner(System.in);
        n = in.nextInt();
        if (n < 0)
            System.out.println("Number should be non-negative.");
        else
        {
            for (c = 1; c <= n; c++)
                f = f*c;
            System.out.println("Factorial of "+n+" is = "+f);
        }
    }
}
```

Output :

Enter an integer to calculate its factorial : 5

Factorial of 5 is = 120

16. Write a program to display Fibonacci series.

```
import java.util.Scanner;

public class PRG_16
{
    public static void main(String[] args)
    {
        int n, a = 0, b = 0, c = 1;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter value of n : ");
        n = s.nextInt();
        System.out.print("Fibonacci Series : ");
        for(int i = 1; i <= n; i++)
        {
            a = b;
            b = c;
            c = a + b;
            System.out.print(a+",");
        }
        System.out.print("\nb.");
    }
}
```

Output :

Enter value of n : 5

Fibonacci Series : 0,1,1,2,3.