

# ASSIGNMENT-3

Name: R. Mathan

Reg no: 192311006

Course code: CSA0993

29:07:24

JAVA

4) Write a program to print the following pattern.

```
Scanner input = new Scanner(System.in)
char c = input.next().charAt(0);
int n = input.nextInt();
for (int i = 1; i <= n; i++)
{
    for (int j = 1; j <= i; j++)
    {
        System.out.print(c);
    }
    System.out.println();
}
```

22) Find the year of the given date is

```
Leap year or not.
import java.util.Scanner;
public class Atk {
    public static void main(String[] args)
    {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter year:");
        String year = input.next();
        String a[] = year.split("/");
        String d = a[2];
        int num = Integer.parseInt(d);
        if ((num % 4 == 0 && num % 100 != 0) || num % 400 == 0)
        {
            // Leap year
        }
        else
        {
            // Not a leap year
        }
    }
}
```

```

        system.out.println("It is a leap year");
    } else {
        system.out.println("Not a leap year");
    }
}

```

23) Find the number of factors for the given number.

```

Scanner input = new Scanner(System.in);
int n = input.nextInt();
int factors = 0;
for (int i = 1; i <= n; i++) {
    if (n % i == 0) {
        factors++;
    }
}

```

System.out.print("Number of factors = " + factors);

```

1. Scanner input = new Scanner(System.in);
int n = input.nextInt();

```

```

int factors = 0;
for (int i = 1; i <= n; i++) {

```

```

    if (n % i == 0) {
        factors++;
    }

```

```

    System.out.print(factors);

```



24) Write a program to print the given number is perfect or not?

```
Scanner input = new Scanner(System.in);
int n = input.nextInt();
int factors = 0;
for (int i = 1; i < n; i++)
{
    if (n % i == 0)
        factors = factors + i;
}
if (n == factors)
    System.out.println("It's a perfect number");
```

25) Write a program to print the number of vowels in the given statement?

```
Scanner input = new Scanner(System.in);
String name = input.nextLine();
int len = name.length();
char a[] = new char[len];
int vow = 0;
for (int i = 0; i < len; i++)
{
    a[i] = name.charAt(i);
    if (a[i] == 'a' || a[i] == 'e' || a[i] == 'i' || a[i] == 'o' ||
        a[i] == 'A' || a[i] == 'E' || a[i] == 'I' || a[i] == 'O' ||
        a[i] == 'U')
        vow = vow + 1;
}
System.out.println(vow);
```

26) Write a program to print below square symbol patterns?

```

Scanner input = new Scanner(System.in);
int n = 5;
char c = input.next().charAt(0);
for (int i = 1; i <= n; i++)
{
    for (int j = 1; j <= n; j++)
    {
        if (i == 1 || j == 1 || i == n || j == n)
            System.out.print(c + " ");
        else
            System.out.print(" ");
    }
    System.out.println();
}

```

27) Write a program to print consonants and vowels separately in the given word.

```

Scanner input = new Scanner(System.in);
String name = input.nextLine();
int len = name.length();
char a[] = new char[len];
char v[] = new char[len];
char c[] = new char[len];
int v = 0, c = 0;
for (int i = 0; i < len; i++)
{
    a[i] = name.charAt(i);
    if (a[i] == 'a' || a[i] == 'e' || a[i] == 'i' || a[i] == 'o' ||
        a[i] == 'u' || a[i] == 'A' || a[i] == 'E' || a[i] == 'I' ||
        a[i] == 'O' || a[i] == 'U')
    {
        v[v] = a[i];
        v++;
    }
    else
    {
        c[c] = a[i];
        c++;
    }
}

```



```

else
{
    con[c] = a[i];
    c++;
}
}
system.out.println("consonants:");
for(int i=0; i<V; i++)
{
    system.out.print(wow[i]);
}
system.out.println("\nvowels:");
for(int j=0; j<C; j++)
{
    system.out.print(conc[j]);
}
}

```

28) Write a program to print the Fibonacci series.

```

Scanner input = new Scanner(System.in);
int n = input.nextInt();
int a1=0, a2=1;
for(int i=0; i<n; i++)
{
    system.out.print(a1+" ");
    int a3=a1+a2;
    a1=a2;
    a2=a3;
}

```