Java

Program on 1-Dimension Array

```
import java.util.Scanner;

/*
 * Program to store and retrieve name of the employees
 */
public class ArraysCode1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter to number of employee: ");
        int n = sc.nextInt();//5
        /*
         * []       ----> 1-Dimension array
         * [][]     ----> 2-Dimension array
         */
        String arr[] = new String[n];

        //Storing the data
        for(int i=0;i<arr.length;i++) {
            System.out.println("Enter the name of the Employee no: "+
(i+1));
            arr[i]=sc.next();
            /*
             * arr[0]=Rohit
             * arr[1]=Gill
             * arr[2]=Virat
             * arr[3]=Surya
             * arr[4]=MSD
             */
        }
        //Fetching the data
        for(int i=0;i<arr.length;i++) {
            System.out.println("the name of the Employee no: "+(i+1)+" is
= "+arr[i]);
        }
    }
}
```

Program on 2-Dimensional Array.

```
import java.util.Scanner;

/*
```

```
 *  Company     Employee
 *     0            3
 *     1            3
 *     2            3
 *     3            3
 *
 *  Write a code to collect the names of employees from each company
 *
 * 2 entities ----> 2 loops ----> 2 [] ----> 2-Dimensional Array
 */
public class ArraysCode1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter to number of companies: ");
        int m = sc.nextInt();//5

        System.out.println("Enter to number of employees in each company:
");
        int n = sc.nextInt();//5

        String arr[][] = new String[m][n];

        //Storing the data
        for(int i=0;i<arr.length;i++) //companies
        {
            System.out.println("Inside company no: "+(i+1));

            for(int j=0;j<arr[i].length;j++) {
                System.out.println("Enter the name of employee no:"+
(j+1));
                arr[i][j]=sc.next();
            }
            /*
             * arr[0][0]=Rohit
             * arr[0][1]=Gill
             * arr[0][2]=Virat
             * -----------------
             * arr[1][0]=Surya
             * arr[1][1]=MSD
             * arr[1][2]=Raina
             * -----------------
             * arr[2][0]=Rahul
             * arr[2][1]=Kaif
             * arr[2][2]=Yuvraj
             * -----------------
             * arr[3][0]=Sachin
             * arr[3][1]=Laxman
             * arr[3][2]=Balaji
             */
        }
        //Fetching the data
        for(int i=0;i<arr.length;i++) //companies
        {
            System.out.println("Inside company no: "+(i+1));
```

```
            for(int j=0;j<arr[i].length;j++) {

                System.out.println("the name of the Employee no: "+(j+1)+"
is = "+arr[i][j]);
            }
        }
    }
}
```

Program on 3-Dimensional array

```
import java.util.Scanner;

/*
 *  Organization Company    Employee
 *      0           0           3
 *                  1           3
 *      1           0           3
 *                  1           3
 *
 *  Write a code to collect the names of employees from each company
 *
 * 2 entities ----> 2 loops ----> 2 [] ----> 2-Dimensional Array
 */
public class ArraysCode1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter to number of organizations: ");
        int a = sc.nextInt();//5

        System.out.println("Enter to number of companies in each
organization: ");
        int m = sc.nextInt();//5

        System.out.println("Enter to number of employees in each company
of each organization: ");
        int n = sc.nextInt();//5

        String arr[][][] = new String[a][m][n];//---> 3-D

        //Storing the data
        for(int i=0;i<arr.length;i++) //companies
        {
            System.out.println("Inside organization no: "+(i+1));

            for(int j=0;j<arr[i].length;j++) //companies
            {
                System.out.println("Inside company no: "+(j+1));
```

```
                for(int k=0;k<arr[i][j].length;k++) {
                    System.out.println("Enter the name of employee no:"+
(k+1));
                    arr[i][j][k]=sc.next();
                }
            }
            /*
             * arr[0][0][0]=Rohit
             * arr[0][0][1]=Gill
             * arr[0][0][2]=Virat
             * arr[0][1][0]=Rohit
             * arr[0][1][1]=Gill
             * arr[0][1][2]=Virat
             *
             * arr[1][0][0]=Rohit
             * arr[1][0][1]=Gill
             * arr[1][0][2]=Virat
             * arr[1][1][0]=Rohit
             * arr[1][1][1]=Gill
             * arr[1][1][2]=Virat
             */
        }
        //Fetching the data
        for(int i=0;i<arr.length;i++) //companies
        {
            System.out.println("Inside organization no: "+(i+1));

            for(int j=0;j<arr[i].length;j++) //companies
            {
                System.out.println("Inside company no: "+(j+1));

                for(int k=0;k<arr[i][j].length;k++) {

                    System.out.println("the name of the Employee no: "+
(k+1)+" is = "+arr[i][j][k]);
                }
            }
        }
    }
}
```

Python

1.Program to reverse the string

```
s='sachin'
print(s)
print(s[::-1]) #1st way
print(''.join(reversed(s))) #2nd way
```

```
#3rd way
n=len(s)-1
data=''
while n>=0:
    data=data+s[n]
    n=n-1

print(data)
```

Program to reverse order of words.

input: Learning Python is very Easy
output: Easy very is Python Learning

```
s=input('enter the string ')
print(s)
lst=s.split()
print(lst)
lst1=[]
n=len(lst)-1
while n>=0:
    lst1.append(lst[n])
    n=n-1

res=' '.join(lst1)
print(res)
```

Program to reverse internal content of each word.

input: knowledge is power
output:egdelwonk si rewop

```
s=input('enter the string ')
lst=s.split()
lst1=[]

n=0
while n<len(lst):
    lst1.append(lst[n][::-1])
    n=n+1

res=' '.join(lst1)
print(res)
```

Write a program to print characters at odd position and even position for the given String?

```
s=input('enter the string ')
n=0
print('char at even position')
while n<len(s):
    print(s[n],end=',')
    n=n+2
print()

n=1
print('char at odd position')
while n<len(s):
    print(s[n],end=',')
    n=n+2
```

Program to merge characters of 2 strings into a single string by taking characters

```
s1=input('enter the s1 ')
s2=input('enter the s2 ')
res=''
i,j=0,0
while i<len(s1) or j<len(s2):
    if i<len(s1):
        res=res+s1[i]
        i+=1
    if j<len(s2):
        res=res+s2[j]
        j+=1

print(res)
```

Write a program to sort the characters of the string and first alphabet symbols followed by numeric values.

input: B4A1D3
Output: ABD134

```
s=input('enter some string ')
s1=s2=res=''
for i in s:
    if i.isalpha():
        s1=s1+i
    else:
        s2=s2+i
for i in sorted(s1):
    res=res+i
```

```
for i in sorted(s2):
    res=res+i
print(res)
```

Write a program for the following requirement

input: a4b3c2
output: aaaabbbcc

```
s=input('enter some string ')
res=''
for i in s:
    if i.isalpha():
        res=res+i
        data=i
    else:
        res=res+data*(int(i)-1)

print(res)



#another way
-------------
s=input('enter the str')
l=[]
res=""
for i in s:
    l.append(i)
for i in range(0,len(s),2):
    res+=(l[i]*int(l[i+1]))
print(res)
```