**JAVA PROGRAMMING**

**NAME: Meghna Lohani**

**REG NO: 16BCE1395**

**Problem**

**Write a Java program to get n numbers of length m. Count the number of digits in the number and the frequency of each digit and print ordering of the numbers.**

**Code**

**Digits.java**

package digits;

import java.util.ArrayList;

import java.util.Iterator;

public class Digits

{

int value;

int length;

Digits(int a)

{value =a;

}

Digits(int a,int l)

{

value =a;

length=l;

}

public int count(int x)

{

int r,c=0;

while(x!=0)

{r=x%10;

c++;

x=x/10;}

length=c;

return length;

}

public void findFreq()

{

int dig[]=new int[length];

String a=Integer.toString(value);

int digcount=0;

int i,j;

System.out.println("Number "+value);

System.out.println("Digit"+"\t"+"Frequency");

char numarray[]={'0','1','2','3','4','5','6','7','8','9'};

for(i=0;i<numarray.length;i++)

{ digcount=0;

for(j=0;j<a.length();j++)

{

if(numarray[i]==a.charAt(j))

digcount++;

}

if(digcount!=0)

System.out.println(numarray[i]+"\t"+digcount);

}

}

}

**DigitsMain.java**

package digits;

import java.util.Scanner;

import java.util.ArrayList;

import java.util.Collections;

import java.util.Iterator;

/\*\*

\*

\* @author eg1

\*/

public class DigitsMain {

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter the value of n");

int n=sc.nextInt();

System.out.println("Enter the value of m");

int m=sc.nextInt();

System.out.println("-------------------------------------------------------");

ArrayList <Integer> D=new ArrayList<Integer>();

//Digits d=new Digits();

int i;

for(i=0;i<n;i++)

{

System.out.println("Enter a number");

int num=Integer.parseInt(sc.next());

System.out.println("Number is "+num);

Digits d1=new Digits(num);

int l=d1.count(num);

if(l>m)

System.out.println("Number of digits cannot be greater than "+m);

else

{

Digits d2=new Digits(num,l);

int l2=d2.count(m);

d2.findFreq();

D.add(d2.value);

}

System.out.println("---------------------------------------------------");

}

System.out.println("Ordering of Numbers");

Collections.sort(D);

Iterator it=D.iterator();

while(it.hasNext()) {

Object element = it.next();

System.out.print(element + " ");

}

}

}

**Output**

run:

Enter the value of n

4

Enter the value of m

3

-------------------------------------------------------

Enter a number

122

Number is 122

Number 122

Digit Frequency

1 1

2 2

---------------------------------------------------

Enter a number

2343

Number is 2343

Number of digits cannot be greater than 3

---------------------------------------------------

Enter a number

223

Number is 223

Number 223

Digit Frequency

2 2

3 1

---------------------------------------------------

Enter a number

111

Number is 111

Number 111

Digit Frequency

1 3

---------------------------------------------------

Ordering of Numbers

111 122 223 BUILD SUCCESSFUL (total time: 17 seconds)

**Screenshot**

