



Sample: Java JSP JSF - Data Structures

```
package testdigits;

import java.util.Scanner;

public class TestDigits {

    public static void main(String[] args) {
        Scanner input =new Scanner(System.in);
        System.out.print("Enter number: ");
        String strvalue=input.next();

        if(isInteger(strvalue)==true){
            int value=Integer.parseInt(strvalue);
            System.out.println("Total number of digits are: "+nmbDigits(value));
        }else{
            System.out.println("Incorrect input");
        }
    }

    static int nmbDigits(int value){
        int count=0;
        while(value%10!=0){
            count++;
            value/=10;
        }
        return count;
    }

    static boolean isInteger(String input ) {
        try{
            Integer.parseInt( input );
            return true;
        }catch( Exception exp){
            return false;
        }
    }
}
```



```
package testmeanval;

import java.util.Random;

public class TestMeanVal {

    public static void main(String[] args) {
        int[] array=new int[20];
        System.out.println("The 20 random integers in range 0..99 are:");
        Random randomGenerator = new Random();
        for (int i = 0; i < 20; i++){
            int randomInt = randomGenerator.nextInt(100);
            array[i]=randomInt;
            System.out.print(randomInt+" ");
        }
        System.out.println("\nThe Arithmetic mean Iteration: "+meanIter(array));
        System.out.println("The Arithmetic mean Recursion:
"+meanRec(array,array.length-1)/array.length);
    }
    //implement meanIter, the iterative version of the method
    static double meanIter(int array[]){
        double sum = 0;
        for (int i = 0; i < array.length; i++){
            sum += array[i];
        }
        return sum/array.length;
    }
    static double meanRec(int array[],int n){
        double result=0;
        if(n==--1){
            return 0;
        }else{
            result=array[n]+meanRec(array,n-1);
            return result;
        }
    }
}
```