**Taking Input with SCANNER class**

import java.util.Scanner;

class Mainsclass

{

public static void main(String args[])

{

int a;

float b;

String s;

double d;

char c1,c2;

Scanner in = new Scanner(System.in);

System.out.print("Enter a string:");

s = in.nextLine();

System.out.println();

System.out.println("You entered string "+s);

System.out.print("Enter an integer:");

a = in.nextInt();

System.out.println();

System.out.println("You entered integer "+a);

System.out.print("Enter a float:");

b = in.nextFloat();

System.out.println();

System.out.println("You entered float "+b);

System.out.print("Enter a double:");

d=in.nextDouble();

System.out.println();

System.out.println("You entered double "+d);

System.out.print("Enter a char:");

c1=in.next().charAt(0);

System.out.println();

System.out.println("You entered char "+c1);

System.out.print("Enter another char:");

c2=in.next().trim().charAt(0);

System.out.println();

System.out.println("You entered another char:"+c2);

in.close();

}

}

**Line by line meaning:**

**1st line:** This is to include the Scanner class of java.util. package. The motive of this program is to make you learn how inputs can be taken using the Scanner class. Since, here, I only need to use the facilities of Scanner class we use:

import java.util.Scanner;

However, we can include the whole java.util package by writing:

Writing\

import java.util.\*;

Writing this, we could use all the classes and their facilities of java.util class in our program.

**2nd line:**

class Mainsclass

This line declares a class and Mainsclass is an identifier that specifies the name of the class.

**3rd line:**

**{**

An opening brace. This denotes the scope for the class. i.e. the data members of the class the functions/methods which operate on the data members must be declared within the opening and closing braces of that class which defines the scope of it. (Scope of the class and scope of the variables and the functions which are local to the class)

**4th line:** public static void main(String args[])

We have already discussed the use of public, static & void keywords for the main method. Now, I will tell the significance of string args []. String is an in build datatype for java and args [] is an array of String datatype. When the main function has only small no. of variables to deal with, which must be specified by the user then we can take those inputs with the help of args [] array (when the no of user inputs are small) . This is called taking command-line arguments.

**5th line:**

{

Another opening braces… which is for defining the scope of main. It must be ended with a closing brace. Now, all the variables which will be defined within the main method, and all the lines written within it, are local to the main. i.e. scope is main (the method main)

**6th line:**

**int a;**

We declare a variable of integer type and a is an identifier that specifies the name of the variable.

**7th line:**

float b;

we declare a variable of float datatype and b is an identifier that specifies the name of the variable.

**8th line:  
String s;**

we declare a variable of composite datatype string and s is an identifier that specifies the name of the variable.

**9th line:**

double d;

We declare a variable of double datatype and d is an identifier that specifies the name of the variable

**10th line:**

**char c1,c2;**

We declare variables of char datatype and c1,c2 are identifiers that specify the name of the variables

**11th line:  
Scanner in = new Scanner(System.in);**

We declare an object of Scanner class and “in” is the identifier which specifies the name of the object.

**12th line:**

**System.out.print("Enter a string:");**

**System** is a method under/in java.lang package. Now, java.lang package is by default included to all the java programs. So, it needs not to be explicitly specified.

Java.lang

Class System

Java.lang.object

Java.lang.System

public final class System extends object

Now, the System class (of java.lang package) contains several useful class fields and methods. Among the facilities provided by the System class are standard input, standard output and error output streams. Here, we use the standard output facility.

By using System.out.println() method we ask the user to enter a string and by using the method instead of System.out.print() we assure that the next line which will be printed or typed will be started from a new line.

**13th line:**

**s = in.nextLine();**