05-FEB-2020

Variable Declaration

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

--> Variable is a container which is used to hold some data

--> In general variables we use to reuse test data in a program

--> Procedure to use variables in the program:

Step 1: Declaration of variable

Syntax: data type variable\_name;

Step 2: Initialization of value

Syntax: variable\_name = data;

Ex:

int myNumber;

myNumber = 100;

(or)

int myNumber = 100;

Note: We can write in any of the style as both are valid statements.

System.out.println(myNumber);

Note:

Sometimes we can declare variable & assign value in the same line

Ex:

int myNumber = 100;

System.out.println(myNumber);

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

Note:

[+] operator we can use to concatenate different values

Ex:

int myNumber

System.out.println(" Assigned value is: "+myNumber);

Ex: Write java program to find sum of given 2 numbers

int firstNum = 10;

int secNum = 20;

int sumof = firstNum + secNum;

System.out.println("Sum of given number is: "+sumof);

System.out.println("Sum of given number is: "+firstNum+secNum);

System.out.println("Sum of given number is: "+(firstNum+secNum));

Note:

Preceding [+] operator used for concatenation then following [+] operators will also do concatenation

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

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

DATA TYPES

----------

There are 8 types of primary data types in java

For Numeric values (i.e. for round values)

1. Byte (8 bits)

Range: -128 to 127

2. short (16 bits)

Range: -32768 to 32767

3. \*\* int (32 bit)

Range: -2,147,483,648 to 2,147,483,647

4. long (64 bit)

Range: -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807

Ex: // For Numeric values

byte myByte = 127; // 128 will not be accepted

System.out.println("My byte value is: "+myByte);

short myShort = 32767;

System.out.println("My short value is: "+myShort);

int myInt = 100000;

System.out.println("My Int value is: "+myInt);

long myVal = 100000000l; // suffix value with "l" i.e. "small L"

System.out.println("My long value is: "+myVal);

For Decimal values

5. float (32 bit) (for 6-7 decimal digits)

6. Double (64 bit) ( for 15-16 decimal digits)

Ex: // for decimal values

float myFloat = 23.45 f; suffix with "f"

System.out.println(myFloat);

double myDouble= 2345.6789

System.out.println(myDouble);

for single character:

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

7. char (16 bit)

Ex: char myGender="M";

System.out.println(myGender);

for True/False

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

8. boolean (1 bit)

boolean myStatus=true; // always in lowercase true or false

System.out.println(myStatus);

Note:

-----

To assign sequence of characters we can use String class in java

Ex: String myVal="LiveTech"; // (8 \* 16 bit)

System.out.println(myVal); // S.O.P System.out.println

Some of the Important String Methods:

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

1. length():

========

To find number of characters in a given string

Ex: String str="LiveTech"; // "LiveTech"

System.out.println(str.length()); // 8 - if space then output is 9 -- will consider spaces also

2. charAt():

========

To read specific character from main string based on given index.

Note: index starts with zero

Ex:

String str="LiveTech";

// to read "L"

System.out.println(str.charAt(0)); //L

// to read "T"

System.out.println(str.charAt(4)); //T

// to read last character from given string (if we know the length)

System.out.println(str.charAt(7)); //h

\*\*\* // to read last character from given string (when we don't know the length)

\*\*\* System.out.println(str.charAt(str.length()-1)); //h

3. indexOf():

=========

To find index of given character in main string

Ex: String str = "LiveTech";

// to find index of "L"

System.out.println(str.indexOf("L")); //0

// to find index of "e"

System.out.println(str.indexOf("e")); //3

4. toUpperCase():

==============

It will convert given string into Uppercase.

Ex: String str="LiveTech"

System.out.println(str.toUpperCase()); //LIVETECH

5. toLowerCase():

=============

It will convert given string to lower case

Ex: String str = "LiveTech"

System.out.println(str.toLowerCase()); //lowercase

Note:

Numeric = 48-57

A-Z = 65-90

a-z = 97-122

===============================================================END OF CLASS========================================================================================