Christian Chamdet 1/14/21

Bafang1981@gmail.com

Java rapport week2

Data types in java

Data type defines the values that the variable can take. In Java we have 2 categories of data type.

1) Primitive data types

2) Non-primitive data types ( Arrays and Strings are non-primitive ).

In Java, we have eight primitive data types: boolean, char, byte, short, int, long, float and double.

byte, short, int and long data types are used for storing whole numbers.

float and double are used for fractional numbers.

char is used for storing characters(letters).

boolean data type is used for variables that holds either true or false.

byte:

This can hold whole number between -128 and 127. Mostly used to save memory and when you are certain that the numbers would be in the limit specified by byte data type.  
Default size of this data type: 1 byte.  
Default value: 0

short:

This is greater than byte in terms of size and less than integer. Its range is -32,768 to 32767.  
Default size of this data type: 2 byte

short num = 45678;

int: Used when short is not large enough to hold the number, it has a wider range: -2,147,483,648 to 2,147,483,647  
Default size: 4 byte  
Default value: 0

## long:

Used when int is not large enough to hold the value, it has wider range than int data type, ranging from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807.  
size: 8 bytes  
Default value: 0

**double**: Sufficient for holding 15 decimal digits  
size: 8 bytes

**float**: Sufficient for holding 6 to 7 decimal digits  
size: 4 bytes

**char**: holds characters.  
size: 2 bytes

Literals in Java

 a fixed value that we assign to a variable in a Program is call literals.

Expl : int num=10 10 is a integer literal.

Char ch = ‘A’

Here A is a char literal.

**double**: Sufficient for holding 15 decimal digits  
size: 8 bytes

**float**: Sufficient for holding 6 to 7 decimal digits  
size: 4 bytes

**boolean**: holds either true of false.

**char**: holds characters.  
size: 2 bytes

variables in java

To declare a variable follow this syntax: data\_type variable\_name = value;

There are **three types of variables** in Java.

1) Local variable

2) Static (or class) variable

3) Instance variable





