

Java Data Types

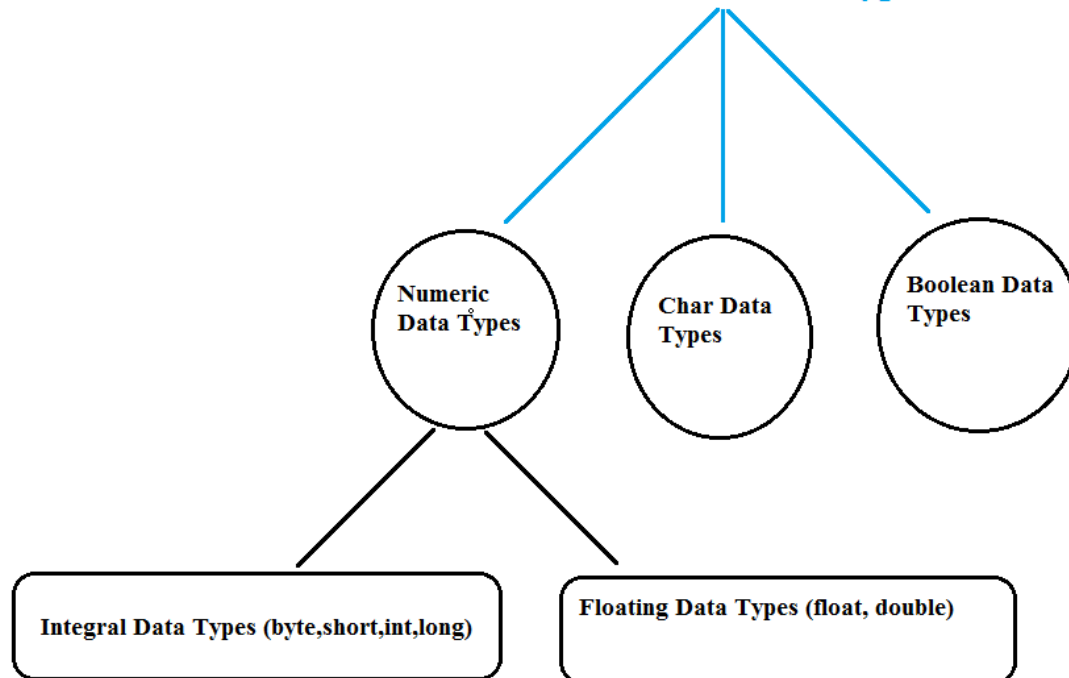
- Data type specifies the size and type of values that can be stored in an identifier
- They are useful to represent how much memory is required to hold the data.
- Represents what type of data to be allowed.
- Java data types are classified into 2 types

---> Primitive Data types

---> User Defined Data types (Reference)

(String, Array, class, abstract class, interface...etc)

Primitive Data Types



byte:

- Size: 1byte (8bits)
- Max-value: +127
- Min-value:-128
- Range: -128 to 127[-2^7 to 2^7-1]

short:

- Size: 2 bytes
- Range: -32768 to 32767(-2^{15} to $2^{15}-1$)

int:

- Size: 4 bytes
- Range:-2147483648 to 2147483647 (-2^{31} to $2^{31}-1$)

long:

- Size: 8 bytes
- Range:- 2^{63} to $2^{63}-1$

float:

- If we want 5 to 6 decimal places of accuracy then we should go for float.
- Size:4 bytes.
- By default, floating point numbers are double in Java. (you need to cast them explicitly or suffix with 'f' or 'F')

double:

- If we want to 14 to 15 decimal places of accuracy then we should go for double
- Size:8 bytes
- double takes more space than float in Java

boolean:

- Either true or false

char:

- Size:2 bytes
- Range: 0 to 65535

Note:

- Arithmetic operations return result in integer format (int/long).

Understanding Java Keywords

- There are 50 Java language keywords.
- We cannot use any of the following as identifiers in your programs.
 - 1) Keywords for data types: (8)
 - 2) Keywords for flow control:(11)
 - 3) Keywords for modifiers:(11)
 - 4) Keywords for exception handling:(6)
 - 5) Class related keywords:(6)
 - 6) Object related keywords:(4)
 - 7) Void keyword(1)
 - 8) Enum (1)
 - 9) Reserved keywords (2)

DATA TYPES

byte
short
int
long
float
double
char
boolean

FLOW CONTROL

if
else
switch
default
for
do
while
break
continue
return ,**case**

MODIFIERS

public
private
protected
static
final
abstract
synchronized
native
strictfp(1.2 version)
transient
volatile

Exception Handling

try
catch
finally
throw
throws
assert(1.4 version)

CLASS

class
package
import
extends
implements
interface

OBJECT

new
instanceof
super
this

void--->It's a return Type Keyword

goto & const ----> Not used in java (Reserved Keywords)

enum ---> It is used to define group of named constants

Comments:

In Java, comments are preceded by two slashes (//) in a line, or enclosed between /* and */ in one or multiple lines.

When the compiler sees //, it ignores all text after // in the same line.

When it sees /*, it scans for the next */ and ignores any text between /* and */.