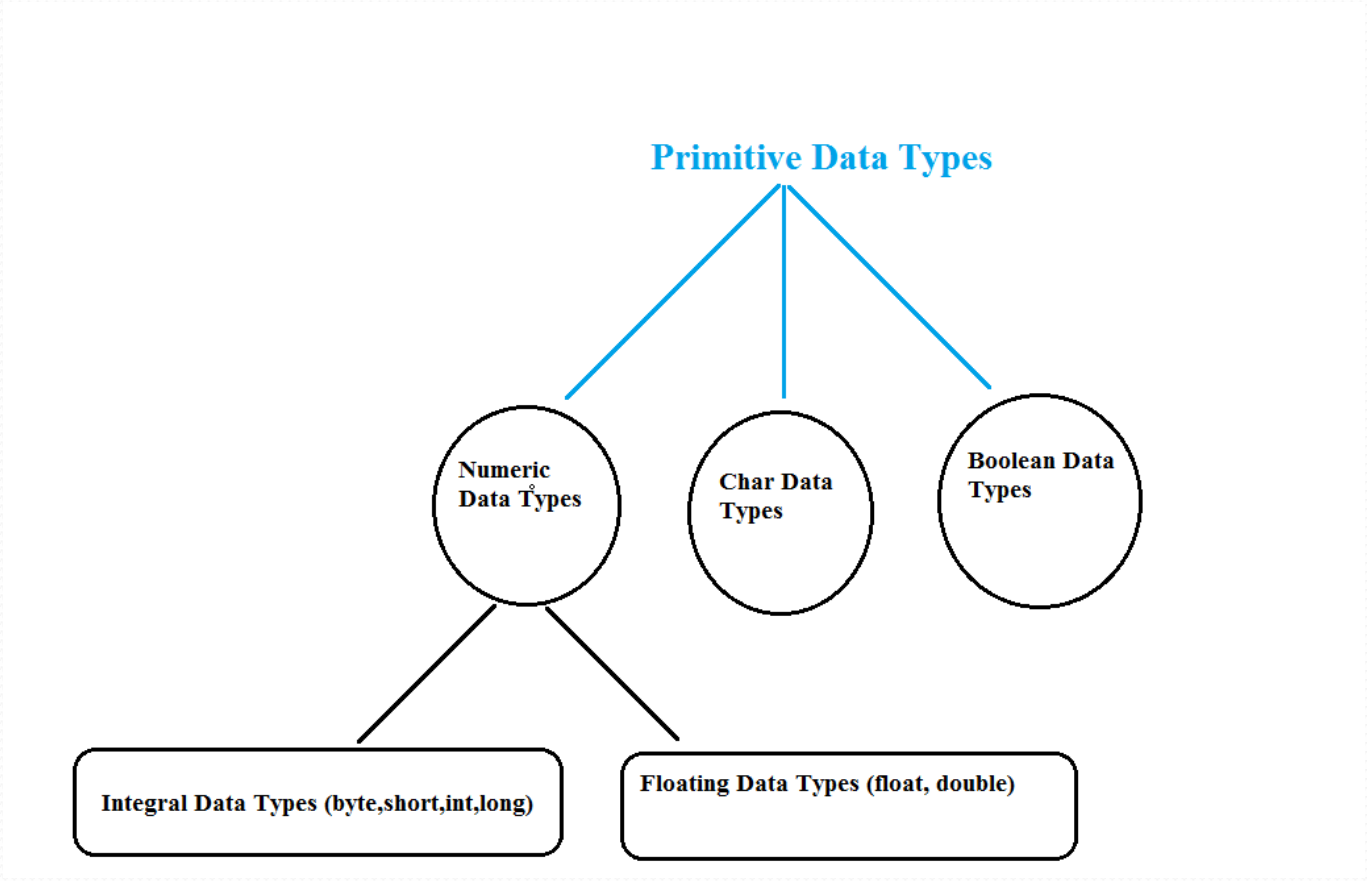
Java Data Types

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

--->Primitive Data types

---> User Defined Data types (Reference)

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


Primitive Data Types
Numeric Data Types
Char Data Types
Boolean Data Types
Integral Data Types (byte,short,int,long)
Floating Data Types (float, double)

byte:

- Size: 1byte (8bits)
- Max-value: +127
- Min-value:-128
- Range: -128to 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).