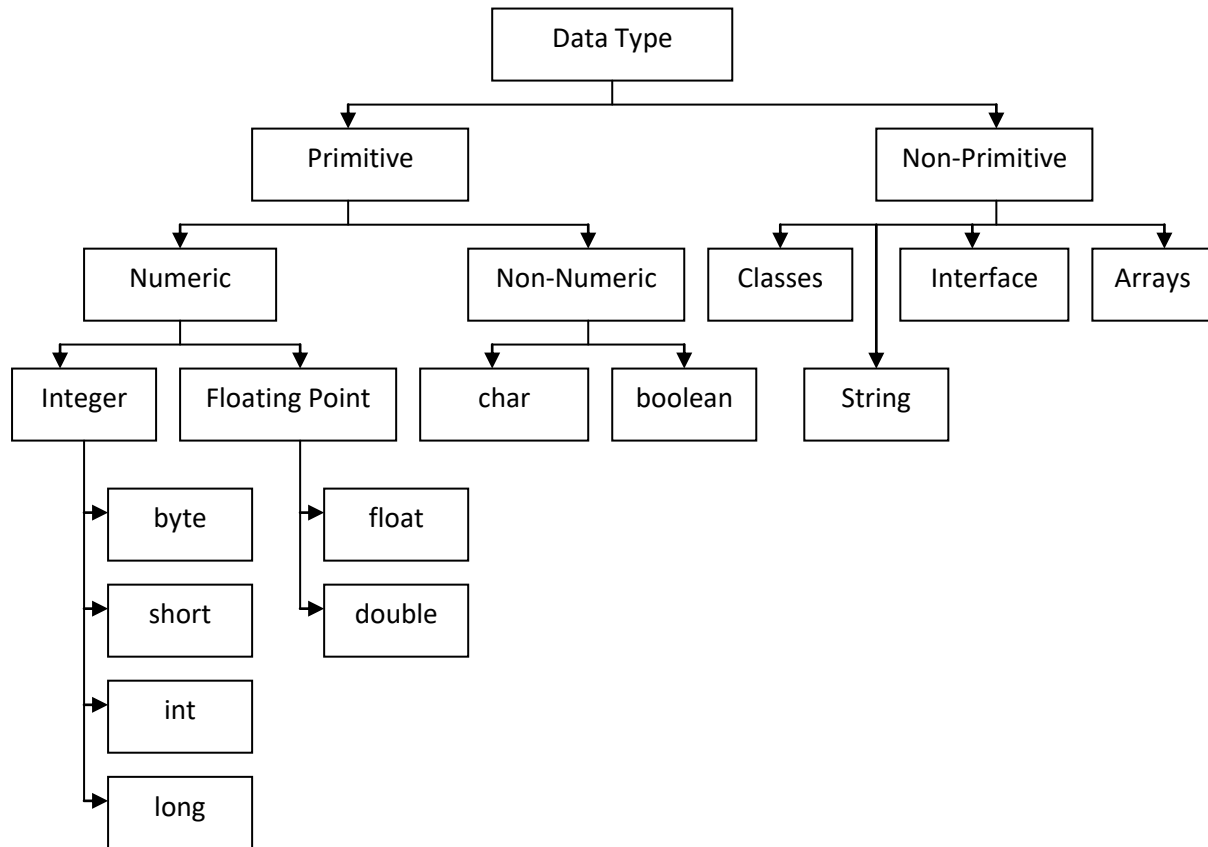


Data Types

- Data types specify the size and type of values that can be stored in a variable.
- Primitive types are also called '*intrinsic*' or '*built-in*' data types.
- Non-Primitives are also called '*derived*' or '*reference*' types.



Data Type	Size	Default Value
byte	1 Byte	0
short	2 Byte	0
int	4 Byte	0
long	8 Byte	0L
float	4 Byte	0.0f
double	8 Byte	0.0d
char	2 Byte	null
boolean	1 Bit	false

Literals

- A literal is a source code representation of a fixed value.
- They are represented directly in the code without any computation.
- It can be assigned to any primitive type variable.
- For example:
 - byte a = 68;
 - char a = 'A';
- byte, int, long, and short can be expressed in decimal(base 10), hexadecimal(base 16) or octal(base 8) number systems as well.

- Prefix 0 is used to indicate octal, and prefix 0x indicates hexadecimal when using these number systems for literals.
- For example:
 - int decimal = 100;
 - int octal = 0144;
 - int hexa = 0x64;
- String literals by enclosing a sequence of characters between a pair of double quotes. Examples of string literals are:
 - "Hello World"
 - "two\nlines"
 - "\"This is in quotes\""
- String and char types of literals can contain any Unicode characters.
- For example:
 - char a = '\u0001';
 - String a = "\u0001";
- Java language supports few special escape sequences for String and char literals as well. They are:

Notation	Character Represented
\n	Newline (0x0a)
\r	Carriage return (0x0d)
\f	Formfeed (0x0c)
\b	Backspace (0x08)
\s	Space (0x20)
\t	tab
\"	Double quote
\'	Single quote
\\	backslash
\ddd	Octal character (ddd)
\uxxxx	Hexadecimal UNICODE character (xxxx)

Questions asked in semester paper

Question-What is a Literal? What are different types of Literals?

[2003-2004]