Literals in Java

A literal is the source code representation of a fixed value.

Literals in Java are a sequence of characters (digits, letters, and other characters) that represent constant values.

There are 5 Type of literals in Java

- **Integer literals**
- **Floating literals**
- **Character literals**
- **String literals**
- **Boolean literals**

Integer literals:

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.

Examples:

```
int decimal = 100;
int octal = 0144;
int hexa = 0x64;
int binary = 0b10011101
```

Floating-point literals:

Floating-point numbers are like real numbers in mathematics, for example, 25.63524, -120.000001. Java has two kinds of floating-point numbers: float and double. The default type when you write a floating-point literal is double, but you can designate it explicitly by appending the D (or d) suffix

Example:

Float x = 253.9652d;

Double y = 4.521F

Character literals:

char data type is a single 16-bit Unicode character. We can specify a character literal as a single printable character in a pair of single quote characters such as 'a', '>', and '3'.

Escape	Meaning
\n	New line
\t	Tab
\b	Backspace
\r	Carriage return
\f	Formfeed
\\	Backslash
\'	Single quotation mark
\"	Double quotation mark

String Literals:

The set of characters in represented as String literals in Java. Always use "double quotes" for String literals. There are few methods provided in Java to combine strings, modify strings and to know whether to strings have the same values.

""	The empty string
"\""	A string containing
"This is a string."	A string containing 14 characters

"This is a " + "two-line string"	Concatenated 2 string literals

Null Literals

The final literal that we can use in Java programming is a Null literal. We specify the Null literal in the source code as 'null'. To reduce the number of references to an object, use null literal. The type of the null literal is always null. We typically assign null literals to object reference variables. For instance

s = null;

Boolean Literals:

The values true and false are treated as literals in Java

programming. Example

boolean chosen = true;