

Character Literal :

It is also known as char literal.

In Character literal we have only one data type i.e char data type which accepts 16 bits of memory.

We can represent character literal in the following ways :

a) Single character enclosed with single quotes.

Example : `char ch = 'A';`

b) We can assign char literal to integral literal data types to know the ASCII value of that particular character literal.

Example : `int x = 'A';`

c) In older languages like C and C++, which supports ASCII value format and the range is 0 - 255, on the other hand Java

supports UNICODE (ASCII + NON ASCII) value format where the range is 0 - 65535.

`char ch = 65535; //Valid`

d) We can represent char literal in 4 digit hexadecimal format to support UNICODE value format.

The format is `'\u0000'`

Here u represents it is UNICODE and d represents the digit which is in hexadecimal format.

Let suppose we want to represent character 'A' in 4 digit hexadecimal number in UNICODE format.

The UNICODE value of character 'A' is 65.

We want to represent this 65 in 4 digit hexadecimal format.

65 is a decimal number so, first we need to convert into hexadecimal format.

$$(65)_{10} = (?)_{16}$$

16	65	1
16	4	4
	0	

$$(65)_{10} = (041)_{16}$$

The hexadecimal number 041 is not in a proper UNICODE format because the format is :

`'\u0000'`

a UNICODE value is 97

$$(97)_{10} = (?)_{16}$$

16	97	1
16	6	6
	0	