

## Differences between C & C++

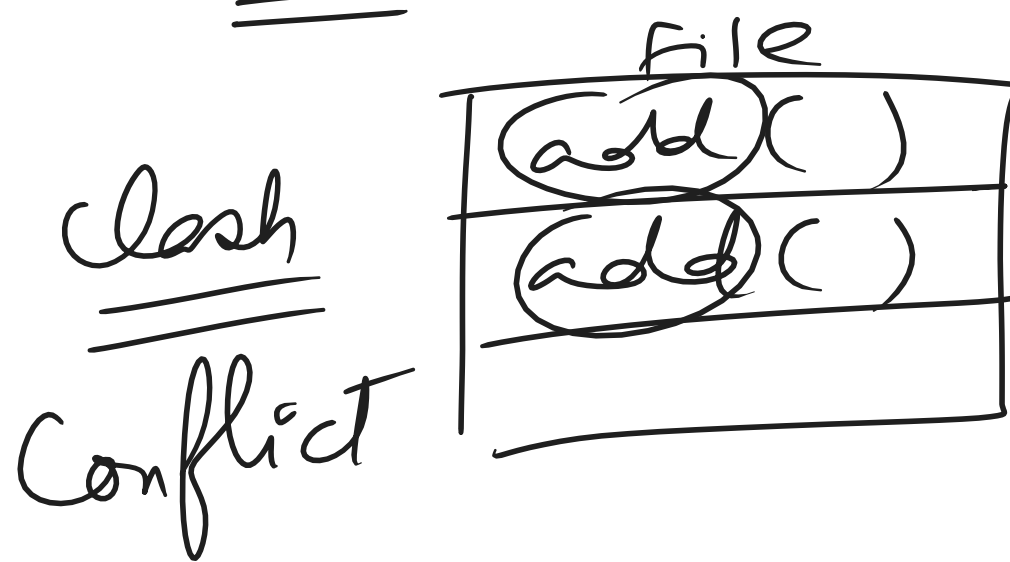
C	C++
* <u>Procedure oriented</u>	* <u>Object Oriented</u>
* Slower compilation	* Faster compilation
* Less Efficient	* More Efficient
* No built-in boolean, string	* Built-in bool, string data types.
* Normal Binary Implementation	* [Stream] of bytes (0,1)
* No Template	* Templates
* No namespaces	* Namespaces
* DMA m, c, r, f	* new & delete
printf()	cin
scanf()	cout
* Format specifiers	* Not Req <sup>d</sup>

Developer 1 <sup>Brisban</sup>

void add(a, b)

Developer 2 <sup>Sing</sup>

void add(a, b, x)



## for-each loop

enhanced for loop

Syntax:

for (datatype var : collection)  
{  
statements;  
}

C++  
Java  
JS

\* Write a C++ Program that has 2 functions

① swap Numbers (a, b)

② swap Letters (a, b)

\* One for swapping nos.

\* One for swapping chars.

\* Create another function which can swap anything.

## Important Algorithm for

Placements:  $f_n^n \times O(n^2)$

## Kadane's Algorithm

⇒ Maximum Sum Subarray

{ 5, -8, 1, 2, -1, 4 }

① (N)

⑥

$c_{max} = a[0]$  ⑤ -8, ① ②, ③ -1, ④

$g_{max} = a[0]$  0 ① ② 3 4 5

$c_{max} = \max(a[i], c_{max} + a[i])$

$g_{max} = \max(c_m, g_m)$

$c_m = m(-1, 2) = 2$   $c = 5$

$c_m = m(4, 6) = 6$   $g = 5$

$g_m = m(6, 5) = 6$  ③

## Object Oriented Programming

\* Class:

\* Object: