

Assignment - 6

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Write a program for swapping of two numbers using 'call by value' and 'call by reference' strategies.

- Code:

```
1  #include <iostream>
2  using namespace std;
3
4  // call by value
5  void swapByValue(int a, int b)
6  {
7      int temp = a;
8      a = b;
9      b = temp;
10 }
11
12 // call by reference
13 void swapByReference(int &a, int &b)
14 {
15     int temp = a;
16     a = b;
17     b = temp;
18 }
19
20 int main()
21 {
22     int x = 10, y = 20;
23
24     cout<<"By call by value method:\n";
25     printf("Before swapping: x = %d , y = %d\n", x, y);
26     swapByValue(x, y);
27     printf("After swapping: x = %d , y = %d\n", x, y);
28
29     cout<<"By call by reference method:\n";
30     printf("Before swapping: x = %d , y = %d\n", x, y);
31     swapByReference(x, y);
32     printf("After swapping: x = %d , y = %d\n", x, y);
33
34     return 0;
35 }
```

- **Output:**

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  Code + - [ ] [x] ^ x
cd "/home/rudrachinhara/Documents/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments/Assignment-6/Swap/" && g++ swap.cpp
-o swap && "/home/rudrachinhara/Documents/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments/Assignment-6/Swap/"swap
rudrachinhara@dell-vostro:~/Documents/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments$ cd "/home/rudrachinhara/Docume
nts/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments/Assignment-6/Swap/" && g++ swap.cpp -o swap && "/home/rudrachinha
ra/Documents/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments/Assignment-6/Swap/"swap
By call by value method:
Before swapping: x = 10 , y = 20
After swapping: x = 10 , y = 20
By call by reference method:
Before swapping: x = 10 , y = 20
After swapping: x = 20 , y = 10
rudrachinhara@dell-vostro:~/Documents/CUH/3rd Sem/Data Structure and Algorithms/DSA_Assignments/Assignment-6/Swap$
```