

Seatwork 4.1 : Stacks

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Course Code: CPE010

Program: Computer Engineering

Course Title: Data Structures and Algorithms

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Name(s): Kerwin Jan B. Catungal

Instructor: Jimlord Quejado

6. Output

```
stack.cpp
1 #include <iostream>
2 #include <stack>
3 using namespace std;
4
5 void showstack(stack <int> s)
6 {
7     while (!s.empty())
8     {
9         cout<<'t' << s.top();
10        s.pop();
11    }
12    cout <<'\n';
13}
14
15 int main ()
16 {
17     stack <int> s;
18     s.push(10);
19     s.push(30);
20     s.push(20);
21     s.push(5);
22     s.push(1);
23     cout<<"The stack is :";  
showstack(s);
24
25     cout <<"\ns.size() : " << s.size();
26     cout <<"\ns.top() : " << s.top();
27
28     cout << "\ns.pop() ; ";
29     s.pop();
30     showstack(s);
31
32
33
34
35 }
```

The stack is : 1 5 20 30 10
s.size() : 5
s.top() : 1
s.pop(); 5 20 30 10

Process exited after 0.01594 seconds with return value 0
Press any key to continue . . . |

8. Conclusion

So here it shows the principle of a stack by pushing a series of numbers and then using a helper function to show how the last number we added is the first one to be removed.

9. Assessment Rubric