

OBJECTIVE : Stack Operations

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1. Download stack_int.h header file from our course website to use stack operations.

Write a C program that initializes an array of six integers with the values taken from the user as input data. Your program should load the array content to a stack and swap the two elements at the top of the stack.

Example Run:

```
Enter an integer: 12
Enter an integer: 2
Enter an integer: 6
Enter an integer: 18
Enter an integer: 1
Enter an integer: 24
```

```
Stack Content
-----
24
1
18
6
2
12
```

```
After swap
-----
1
24
18
6
2
12
```

Project Name: LG6_1
File Name: Q1.cpp

Q2. Download stack_int.h header file from our course website and, then, customize it to deal with char operations and lastly name it as stack_char.h.

A **palindrome** is a word, phrase, number or other sequence of units that has the property of reading the same in either direction.

Write a function **palindrome()** that gets a string as parameter and returns 1 if the string is palindrome, 0 otherwise. (**Hint:** Make the check by using a character stack.)

Write a main function that reads several sentences from a text file named **palindrome.txt** and finds and displays only the palindromes on the screen.

Assume input data is a VALID postfix expression.

Project Name: LG6_2
File Name: Q2.cpp

Palindrome.txt

```
palindrome or not
madam
ey edip adanada pide ye
Study hard
kulluk
use comment
stack Implementation
```

Example Run:

```
madam
ey edip adanada pide ye
kulluk
```

