

To run program -> bash and paste "g++ -std=c++17 -Wall -Wextra -I. \$(find . -name "\*.cpp") -o main.exe && ./main.exe"

### Template declaration and definition separation solution by Canann

```
deviv@Devi MINGW64 ~/303 Assignment 2 (main)
● $ g++ main.cpp Stack.cpp -o main.exe

deviv@Devi MINGW64 ~/303 Assignment 2 (main)
○ $ ./main

Main Menu:
a: Single Linked Class Function
b: Stack Function
q: Exit
Enter an option: 
```

Enter a:

```
Linked List Class Functions Menu:

a: push_front
b: push_back
c: pop_front
d: pop_back
e: front
f: back
g: empty
h: insert
i: remove
j: find

q: Exit
Enter an option: 
```

Enter a:

```
Enter an option: a

Enter an integer to push_front: 10
Linked List: 10
```

Enter b:

```
Enter an option: b

Enter an integer to push_back: 20
Linked List: 10 20
```

Note: Can add more than one time.

Enter c:

```
Enter an option: c

Removed the front of list!
Linked List: 20
```

Enter d:

```
Enter an option: d

Removed the back of list!
List is empty.
```

Enter e:

```
Enter an option: e

Error : List is empty!
```

Enter f:

```
Enter an option: f

Error : List is empty!
```

Enter g:

```
Enter an option: g

List is empty!
```

Enter h:

```
Enter an option: h

Enter an index to insert at: 0

Enter a value to insert: 100
Linked List: 100
```

Enter i:

```
Enter an option: i

Enter an index to remove at: 0

Value removed successfully!
List is empty.
```

Enter j:

```
Enter an option: j

Enter a value to search: 100
Value not found in List.
```

Enter q:

```
Enter an option: q

Exiting Single Linked Class! Thank you!

Main Menu:
a: Single Linked Class Function
b: Stack Function
q: Exit
Enter an option: 
```

Enter b:

```
Stack Functions:
a: Create a Stack object.
b: Empty?
c: Insert a Value
d: Remove an Element
e: Top of Stack
f: Average value of Stack
q: Exit

Enter an option: 
```

Enter a:

```
Enter an option: a

Created a stack object...sucessfully!
```

Enter b:

```
Enter an option: b

Stack is empty!
```

Enter c:

```
Enter an option: c

Enter value to add to stack: 10

Stack from top to bottom : 10
```

Enter d:

```
Enter an option: d

Removing an element from stack!
Removed: 10
```

Enter e:

```
Enter an option: e

terminate called after throwing an instance of 'std::runtime_error'
  what():
Stack is empty!
```

Run code again and add more integers!

Enter e:

```
Stack from top to bottom : 9 11 10

Stack Functions:
a: Create a Stack object.
b: Empty?
c: Insert a Value
d: Remove an Element
e: Top of Stack
f: Average value of Stack
q: Exit

Enter an option: e

Returning the top of stack: 9
```

Enter f:

```
Enter an option: f
```

```
Returning the average value of stack: 10
```

Enter q:

```
Enter an option: q
```

```
Exiting Stack Functions, Thank you!
```

Enter q:

```
Main Menu:
```

```
a: Single Linked Class Function
```

```
b: Stack Function
```

```
q: Exit
```

```
Enter an option: q
```

```
Exiting Program!
```