

## CS 173 Stack Assignment

In chapter 18 you will find information about stacks and queues. We will be doing both. The first assignment is to create the type `Stack`. Using a string of characters as an abstraction, we note that a stack is a string that can be accessed only at one end. As an example, suppose a stack has the entries  `d p h b`. Describing the operations in terms of this example, we have:

- `Push(r)`: place an element on the stack. Result:  `r d p h b`
- `Pop()`: remove the topmost element:  `p h b`
- `Length()`: return 4
- `Clear()`: Remove all elements leaving an empty stack. This can be done in the destructor.
- The constructor sets up an empty stack.

We will do 2 different implementations for the stack. The first one, due November 20, will use pointers. You will need a pointer called “top,” to represent the place where all pushes and pops take place.

The second implementation, due November 21, will not use pointers, but will use your list position type that you created last week. To push, you will use `reset` and `insert`. To pop, you will use `reset` and `remove`. To get length, you will use `reset` and `length of remainder`.