PFII Lab 11: Stacks & Queues

In this lab I learned more about the uses of linked lists compared to array notation for implementations. The overarching lesson of this lab was the implementation of Stack and Queue classes and how they work (shown through the testing in the main). Another thing that was repeated from previous labs and assignments is the scope resolution operator :: for defining methods in the respective cpp files. In conclusion, this lab introduced new concepts of Stacks & Queues using the previous content from class like linked lists, arrays, class declaration, etc. providing good review.

Program Output:

Stack contains: [ 0 1 2 3 4 5 6 7 8 9 ]

Stack Size: 10

Top: 9

Stack contains: [ 0 1 2 3 4 5 6 7 8 ]

Stack Size: 9

Top: 8

Stack contains: [ 0 1 2 3 4 5 6 7 ]

Stack Size: 8

Top: 7

Stack contains: [ 0 1 2 3 4 5 6 ]

Stack Size: 7

Top: 6

Stack contains: [ 0 1 2 3 4 5 ]

Stack Size: 6

Top: 5

Stack contains: [ 0 1 2 3 4 ]

Stack Size: 5

Top: 4

Stack contains: [ 0 1 2 3 ]

Stack Size: 4

Top: 3

Stack contains: [ 0 1 2 ]

Stack Size: 3

Top: 2

Stack contains: [ 0 1 ]

Stack Size: 2

Top: 1

Stack contains: [ 0 ]

Stack Size: 1

Top: 0

Queue contains: [ 0 1 2 3 4 5 6 7 8 9 ]

Queue Size: 10

Front: 0

Queue contains: [ 1 2 3 4 5 6 7 8 9 ]

Queue Size: 9

Front: 1

Queue contains: [ 2 3 4 5 6 7 8 9 ]

Queue Size: 8

Front: 2

Queue contains: [ 3 4 5 6 7 8 9 ]

Queue Size: 7

Front: 3

Queue contains: [ 4 5 6 7 8 9 ]

Queue Size: 6

Front: 4

Queue contains: [ 5 6 7 8 9 ]

Queue Size: 5

Front: 5

Queue contains: [ 6 7 8 9 ]

Queue Size: 4

Front: 6

Queue contains: [ 7 8 9 ]

Queue Size: 3

Front: 7

Queue contains: [ 8 9 ]

Queue Size: 2

Front: 8

Queue contains: [ 9 ]

Queue Size: 1

Front: 9