Asymptotic analysis:

1. Push

My push implementation is in the order of O(1). Reason – it is one single operation every time a new item is added(pushed) to the stack. No iterations or anything of the sort takes place.

1. Pop

Same as above, only this time the item is popped.

1. The iteration to push the new items to the Stack has linear complexity. O(n). Every item is pushed on top of the other.
2. The iteration to pop them, and print the result again has the same complexity of 0(n). In my case, this is O(2n) as I have a separate line to store the value in a variable but as per the rules of simplifications, this can be presented as O(n).

The total complexity of the entire algorithm can be presented as **O(n).**

In my case, this is also **Θ(n).**

**Notes:**

1. This assignments contains ***no references*** as the information used is a well-known free knowledge.
2. The algorithm implementation is ***my own*** work. Considering the there are finite number of possible ways to create a ***proper*** implementation of the task, I do not claim that I am the first one to come up with it.
3. All notations have been simplified as per the simplification rules(specifically emitting the constants). So please save the time of both of us explaining that sometimes it is actually O(2n).