

Credit: CSE3110 - Iterative Algorithm 1
Assignment: ReverseList

How has your code changed from planning to coding? Please explain.

Originally, I had wanted to take the user input and push it to a stack then turn that stack into an array then print out the array from end to front. This was before I realized that a stack was a last in first out structure.

```
1  
2  
3     input.close();  
4     /*  
5     for (String s: words)  
6     {  
7         counter ++;  
8     }  
9     */  
10    stackNumbers = stack.toString().split("" + '\n');  
11  
12    for(int i = stack.size(); i > -1; i--)  
13    {  
14        System.out.println(stackNumbers[i]);  
15    }  
16  
17  
18  
19 }  
20 }  
21 }  
22 }
```

- Imagine the comments are part of the code and that \n is replaced with " ".

This approach worked but I realized that this wouldn't satisfy the assignment criteria of using a stack to sort and reverse the integers. I then thought I had to reverse the stack order itself by using a new stack then use a series of top and pop methods to go down the stack. Since stack is last in first out, I didn't need to do this and just had to do top and pop to go through the stack.

Final code

```
System.out.print("The list reversed is:");  
  
//For loop to print the top of the stack then pop;  
for(int i = stack.size() - 1; i > -1; i--)  
{  
    System.out.print(" " + stack.top());  
    stack.pop();  
}
```

This was less lines of code than my original plan using an array.