

CS401 Lab 4

This lab is to be completed individually.

This lab is for you to understand Stack data structure implementation.

What to do?

1. Read input from "emp.txt" having each line as "ID" and "NAME"(Ex: 1 Taylor) separated with a space.
2. Read line in "emp.txt" and create employee object and store it in your stack
3. You are given a file of 30 employees as input
4. Use Array to implement your stack, it should support the following operations:
 - Push
 - Pop
 - Top
5. For each employee objects (Each line of the input file), you will need to push it on your implemented Stack data structure using "Push" operation

Make sure that your code is well documented i.e., in-line comments with a simple README would be ideal. For instance, every function and complex portion of code should have comments that describe what it does.

Program input

A single .txt file named "emp.txt" and it should contain 30 employees ID's and NAME's

Program output (sample)

1. Print top element from stack
2. Then Pop two elements from stack
3. Perform Top operation on stack. Then print the top element from stack again.
4. Push new data manually and top element from the stack.

Your output should look something like this(For reference purpose only)

```
Top element from stack: ID: 030, Name: Chloe
Popping two elements from stack:
After popping, top element from stack: ID: 028, Name: Lily
After pushing new data, top element from stack: ID: 999, Name: Mike
|
```

What to turn in?

1. Source code
2. Your program's outputs in a PDF file
3. JAR file.
4. README file to demonstrate how your program works. Include a command to determine how to run the JAR file.

Please submit on Blackboard before the assigned due date