NEW YORK CITY COLLEGE OF TECHNOLOGY THE CITY UNIVERSITY OF NEW YORK
Department of Computer Engineering Technology *300 Jay Street, Brooklyn, NY 11201-1909*

LAB REPORT

CET 3640 – OL30

(SOFTWARE FOR COMPUTER CONTROL)

LAB#9

JAVA PROGRAM STACKS

Name: Puja Roy

Date: 5/19/22

Due Date: 5/21/22

DESCRIPTION OF THE LAB:

In this lab, I wrote a java program in Eclipse that searches and prints the longest string in the stack of strings. First, I created a class called Main with a main file. Then, I wrote Java code that sets the longest string set to null and goes through a loop until the stack of strings become empty. After that, each element is removed and verifies which string is the largest in the stack of strings inputted by the user. The program prints out which string is the largest. Among the strings I inputted into the program, computer was the largest string since it contains 8 letters, and the rest of the strings contain less than 8 letters. I also wrote a for loop which pushes the stack of the entire array containing 10 strings and as a result prints the largest string.

```java
//NAME: Puja Roy
//DATE: 5/19/22

import java.util.*;

public class Main
{
static void longest(Stack<String> st)
{
String longest="";//longest string is set to null
while(!st.isEmpty())//loop until stack of strings becomes empty
{
String s=st.pop();//remove each element
if(s.length()>longest.length())// Verifies which string in each stack is larger
{
longest=s;//if it is larger then executes the word (string)
}
}
System.out.println(longest);//Prints the largest or longest string of the stack
}
   public static void main(String[] args) {
       Stack<String> st= new Stack<>();
       String []str={"table","chair","computer","hi","hello","Student","Joseph","King","Queen","Rosie"};
       for(int i=0;i<str.length;i++)//you can push whole array if the size is large also
       {
       st.push(str[i]);//push 10 elements to stack
       }
       System.out.println(st);//stack values
       longest(st);//call function
   }
}
```

Console ×

<terminated> Main (3) [Java Application] C:\Users\pujar\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin

```
[table, chair, computer, hi, hello, Student, Joseph, King, Queen, Rosie]
computer
```