

Lab Assignment 2

a) Lab a

- i) Takes in user input of *CSUMB* and loops through it while pushing it into stack *s*. Then proceeds to pop all elements out and set them as characters in a string. It then displays the reversed string.

```
Console
<terminated> (exit value: 0) hw2 - lab
Enter a string => CSUMB
You entered CSUMB
Reverse is BMUSC
```

b) Lab b

- i) Sample execution 1: *The program has the user input a number then takes the number and divides it by 2 continuously to find a remainder of 1 or 0 and pushes it into the stack until the number is equal to zero. It then outputs the stack of remainders as the binary value.*

```
4 /
Console
<terminated> (exit value: 0) hw2 - lab
Enter a number: 5
Decimal: 5
Binary: 101
```

- ii) Sample execution 2: *The program divides the inputted number by 2 continuously to find a remainder of 1 or 0 and pushes this into the stack until the number equals zero. It then outputs the stack of remainders as the binary value.*

```
46 }
47
Console
<terminated> (exit value: 0) hw2 - lab
Enter a number: 26
Decimal: 26
Binary: 11010
```