United International University (UIU)

Department of CSE

Trimester: Summer 2022

Course Name: | CSE 4510 / CSI 310 | Operating Systems Laboratory

Submission Guideline:

- Code each problem in separate shell scripts (task1.sh, task2.sh)
- Create a folder and put your shell scripts inside the folder
- Rename the folder with your 9 digit student ID (011XXXXXX).
- ZIP the folder and submit the 011XXXXXX.zip file

Please do not copy codes from others/the internet. Each of the offline assignments will be evaluated with a viva. You must be able to explain your code. Also, we will run a copy checker on the submissions. Any plagiarism will be severely penalized.

Tasks: **Total Marks: 15.0**

1. **[8 marks]** Write a shell script that takes in **three command line arguments**.
   If the number of command line arguments is not three, print *"please run the script with exactly three arguments"*. In this case, terminate the program without executing anything more.
   If the number of arguments is three, the script will then create a file having the same name as the **first** argument inside the *Desktop* directory of your computer. It will then rename this file to the **second** argument. Interpret the **third** argument as n. The script will then take n inputs from your terminal and write each input in a new line of the newly created file.

2. **[7 marks]** Write a shell script containing the following functions:
   - **sum_of_series()**: The function will take as input one number. It will then calculate the sum of the series consisting 1 to the given number. The sum is then stored in a variable. Return the variable from the function.
   - Example - input: 5, output: 1+2+3+4+5 = 15

   Your main shell script will take the number as input.
   You need to perform a validity check to ensure the inputs are valid. This can be done in the following ways:
   - If the input is non-positive, print a message that the input is invalid. Then ask the user for a valid input. Repeat this until you get a valid length as input.

   Your script will then make calls to the functions you defined before, and print out the resultant factorial from as follows:
   - The sum is: xxxx