Objective: At the end of this lab, you will be able to read data from file, manipulate them in some way, and then write some data to another file effectively.

In-class exercises

You should have time to finish at least the following exercises in class.

1. Write a program to ask user for a message. Write this message 100 times into a file named messages.txt

2. Write a program to ask user for a file name. Write into that file the source code for drawing a circle using Turtle.

3. Write a program that asks user for the name of a text file that they want to open (you must create this file before) and then creates a new text file by copying all lines from the file that exists before and insert a number into each line (starting from 1).

Save this file with a new name which is suffixed by the existing file name. For example, if the existing file is **myfile.txt**, the new file name will be **new_myfile.txt.**

To receive the full mark for this question, you must apply the divide-and-conquer strategy by creating relevant functions and using them effectively. You can assume that both files reside in the same folder with your program.

As an example, if you have a text file with the following lines:

```
# RMIT University Vietnam
# Author: Nhi Vo
# Created date: 30/04/2022

# This is a very short program

for i in range(100):
    print("Hello World!")
```

And you run the program as follow:

```
Enter the name of your text file: simple.py
new_simple.py was created successfully.
```

Then create a new text file as "new_***.txt" (*** is the original file name) with the following lines:

```
1# RMIT University Vietnam
2# Author: Nhi Vo
3# Created date: 30/04/2022
```

```
4
5# This is a very short program
6
7for i in range(100):
8    print("Hello World!")
```

4. Try to find the indices of missing values in this file **edited_vietnam.txt (https://rmit.instructure.com/courses/113613/files/27266328?wrap=1)** **(https://rmit.instructure.com/courses/113613/files/27266328/download?download_frd=1)**