

FBT0015 STRUCTURED ALGORITHM & PROGRAMMING

LAB EXERCISE WEEK 12

Learning Outcomes

Upon completion of this lab session, learners will be able to:

1. understand the concept of file processing with Python
2. use input and output file in Python program

Activity #1

1. To create a textfile in your computer by using Python program, you may start with the code below:

```
outfile= open (r"C:\Users\afnanamirruddin\Desktop\triangle.txt","w")
```

outfile :the file variable

r"C ::\Users\ afnanamirruddin \Desktop\triangle.txt":name of the physical file*

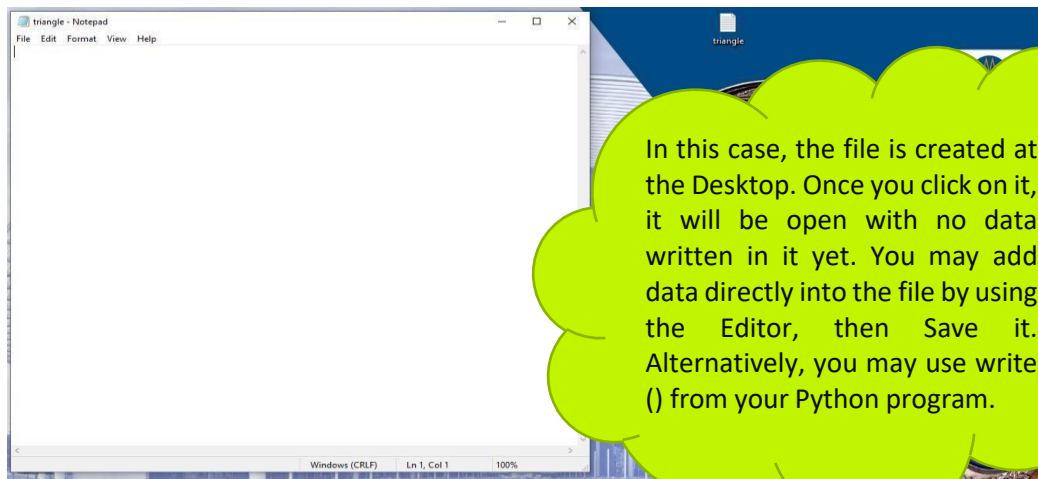
w :mode -to write to file

*you may specify the path of your file but not to miss the 'r' or you will get
SyntaxError: (unicode error) 'unicodeescape' codec can't decode bytes in position 2-3: truncated \UXXXXXXXX escape.

Need to convert from normal string to raw string. Alternatively, you may write the path of your file with different slash "C:\\Users\\afnanamirruddin\\Desktop\\triangle.txt"

Run the code below (by using your own file path) and you will be able to retrieve the file triangle.txt at the specified path.

```
outfile= open ("C:\\Users\\afnanamirruddin\\Desktop\\triangle.txt","w")
print("file has successfully created")
outfile.close()
```



In this case, the file is created at the Desktop. Once you click on it, it will be open with no data written in it yet. You may add data directly into the file by using the Editor, then Save it. Alternatively, you may use write () from your Python program.

Activity #2

Run the code below and observe what was created:

```
1.
#the code will create the file variable to open and write to a file
#name pantun.txt. File will be created in your compiler.
outfile= open("pantun.txt","w")
#1st line
outfile.write('buai laju laju\n')
#second line
outfile.write('sampai pokok sena\n')
#third line
outfile.write('apa dalam baju\n')
#display on console to notify the user that the data is save
print("file has successfully created")
outfile.close()

2.
#the code will create the file variable to open and read from a file
#name pantun.txt. File was created in your compiler earlier.
infile=open("pantun.txt","r")
#read the content of the file and store it the variable, content
content = infile.readlines()
#display the value in content line by line
for line in content:
    print(line)
#display on console the notification that data is transferred
print("file has successfully transferred")
infile.close()

3.
#the code will create the file variable to open file and append
#additional data to a file name pantun.txt. File was created in your
#compiler earlier.
outfile= open ("pantun.txt","a")
#4th line
outfile.write('sekuntum bunga cina\n')
#display on console to notify the user that the data is save
print("file has successfully edited")
outfile.close()
```

Type and run the code at 2, to check whether the additional line saved into pantun.txt or not.

Activity #3

1. A program consists of a function definition called `WorldCup` that save the name of country written by user repetitively until user enter 'Quit', displays it to the screen and stores it to file `WCTeam.txt`:

```
Enter the world cup team: England
Name saved successfully in a file. Quit to exit or else to continue: Portugal
Name saved successfully in a file. Quit to exit or else to continue: Brazil
Name saved successfully in a file. Quit to exit or else to continue: Argentina
Name saved successfully in a file. Quit to exit or else to continue: Spain
Name saved successfully in a file. Quit to exit or else to continue: Holland
Name saved successfully in a file. Quit to exit or else to continue: Germany
Name saved successfully in a file. Quit to exit or else to continue: France
Name saved successfully in a file. Quit to exit or else to continue: Quit
Exit program
```

The program should also consist of function called `WorldCup_display` that will show the saved country names in the `WCTeam.txt` to the program:

```
Team saved in WCTeam.txt are:
England
Portugal
Brazil
Argentina
Spain
Holland
Germany
France
```

-END OF QUESTION-