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Batch: C

SY COMPS

Experiment No. : 5

AIM:

Write an application to edit a text file

THEORY:

File Handling

`open()`

The key function for working with files in Python is the `open()` function.

The `open()` function takes two parameters; filename, and mode.

There are four different methods (modes) for opening a file:

- "r" - Read - Default value. Opens a file for reading, error if the file does not exist
- "a" - Append - Opens a file for appending, creates the file if it does not exist
- "w" - Write - Opens a file for writing, creates the file if it does not exist
- "x" - Create - Creates the specified file, returns an error if the file exists

In addition you can specify if the file should be handled as binary or text mode

- "t" - Text - Default value. Text mode
- "b" - Binary - Binary mode (e.g. images)

Syntax

```
f = open("demofile.txt", "mode")
```

`read()`

By default the `read()` method returns the whole text, but you can also specify how many characters you want to return:

```
f = open("demofile.txt", "r")  
print(f.read(5))
```

You can return one line by using the `readline()` method:
`print(f.readline())`

`close()`

It is a good practice to always close the file when you are done with it.
`f.close()`

You should always close your files, in some cases, due to buffering, changes made to a file may not show until you close the file.

`write()`

To write to an existing file, you must add a parameter to the `open()` function:

- "a" - Append - will append to the end of the file
- "w" - Write - will overwrite any existing content

`writelines()`: writes a sequence of strings to the file. The sequence can be any iterable object producing strings, typically a list of strings. There is no return value.
`fileobj.writelines(sequence)`

Create a New File

To create a new file in Python, use the `open()` method, with one of the following parameters:

- "x" - Create - will create a file, returns an error if the file exist
- "a" - Append - will create a file if the specified file does not exist
- "w" - Write - will create a file if the specified file does not exist

CODE:

```
def open_file():
    file = open("data.txt", "r")
    content = file.read()
    print("\n")
    print(content)

def exit():
    file = open("data.txt")
    file.close()
```

```

def appending():
    file = open("data.txt", "a")
    text = input("\nEnter the text you want to write:\n")
    file.write("\n")
    file.write(text)
    file.close()

def writing():
    file = open("data.txt", "w")
    text = input("\nEnter the text you want to write:\n")
    file.write("\n")
    file.write(text)
    file.close()

print("O ---> opening the file in read mode ")
print("C ---> closing the file")
print("E ---> exiting the menu")
print("W ---> writing in the file")
print("A ---> appending in the file")

while (1):
    a=input("\nEnter the action you want to perform: ")

    if(a == 'O'):
        open_file()

    elif(a == 'C'):
        exit()

    elif(a == 'W'):
        writing()
        ans = input("Do you want to see the edited file? (y/n): ")
        if(ans == 'y'):
            print("\nAfter writing the file is:")
            open_file()

    elif(a == 'A'):
        appending()

```

```
ans = input("Do you want to see the edited file? (y/n): ")
if(ans == 'y'):
    print("\nAfter appending the file is:")
    open_file()
elif(a == 'E'):
    break
```

OUTPUT:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Code + - [] 🗑️ ... ▾ ✕

```
python -u "/home/siddhi/SHP_CSE/Python_lab/file_handle.py"
• (base) siddhi@siddhi-Inspiron-3576:~/SHP_CSE/Python_lab$ python -u "/home/siddhi/
SHP_CSE/Python_lab/file_handle.py"
O ---> opening the file in read mode
C ---> closing the file
E ---> exiting the menu
W ---> writing in the file
A ---> appending in the file

Enter the action you want to perform: 0

hellllooooo!!!
Siddhi here
Performing file handling in python

Enter the action you want to perform: C

Enter the action you want to perform: A

Enter the text you want to write:
use "a" to append in any file
Do you want to see the edited file? (y/n): y

After appending the file is:

hellllooooo!!!
Siddhi here
Performing file handling in python
use "a" to append in any file

Enter the action you want to perform: W

Enter the text you want to write:
python is the easiest programming language to learn.
Do you want to see the edited file? (y/n): y

After writing the file is:
```

```
python is the easiest programming language to learn.
Do you want to see the edited file? (y/n): y
```

After writing the file is:

python is the easiest programming language to learn.

Enter the action you want to perform: E

```
○ (base) siddhi@siddhi-Inspiron-3576:~/SHP_CSE/Python_lab$
```

CONCLUSION:

Thus, from this experiment I developed an application in Python Programming Language using file handling methods like open(), read(), write(),close() .