



Vidyavardhini's College of Engineering & Technology

Department of Computer Engineering

Experiment No. 5
Exploring Files and directories: Python program to append data to existing file and then display the entire file
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Experiment No. 5

Title: Exploring Files and directories: Python program to append data to existing file and then display the entire file

Aim: To Exploring Files and directories: Python program to append data to existing file and then display the entire file

Objective: To Exploring Files and directories

Theory:

Directory also sometimes known as a folder are unit organizational structure in computer's file system for storing and locating files or more folders. Python now supports a number of APIs to list the directory contents. For instance, we can use the Path.iterdir, os.scandir, os.walk, Path.rglob, or os.listdir functions.

Python too supports file handling and allows users to handle files i.e., to read and write files, along with many other file handling options, to operate on files. The concept of file handling has stretched over various other languages, but the implementation is either complicated or lengthy, but alike other concepts of Python, this concept here is also easy and short. Python treats file differently as text or binary and this is important. Each line of code includes a sequence of characters and they form text file. Each line of a file is terminated with a special character, called the EOL or End of Line characters like comma {,} or newline character. It ends the current line and tells the interpreter a new one has begun. Let's start with Reading and Writing files.

Working of open() function

We use open () function in Python to open a file in read or write mode. As explained above, open () will return a file object. To return a file object we use open() function along with two arguments, that accepts file name and the mode, whether to read or write. So, the syntax being: open(filename, mode). There are three kinds of mode, that Python provides and how files can be opened:

“ r “, for reading.



“ w “, for writing.

“ a “, for appending.

“ r+ “, for both reading and writing

Program :

FILES

#Single Line Write

```
f = open("test.txt", "w")
```

```
str = input("Enter the string: ")
```

```
f.write(str)
```

```
f.close()
```

```
print()
```

#Single Line Read

```
f = open("test.txt", "r")
```

```
str = f.read()
```

```
print("The content of test.txt : \n",str)
```

```
f.close()
```

```
print()
```

#Multiple Line Write

```
f = open("test.txt", "w")
```

```
print("Enter @ to stop: ")
```



```
str = input()
```

```
while str != '@' :
```

```
    f.write( str + '\n')
```

```
    str = input()
```

```
f.close()
```

```
print()
```

```
#Multiple Line Read
```

```
f = open("test.txt", "r")
```

```
str = f.read()
```

```
print("The content of test.txt : \n", str)
```

```
f.close()
```

```
print()
```

```
#Appending the new data
```

```
f = open("test.txt", "a+")
```

```
print("Enter @ to stop: ")
```

```
str = input()
```

```
while str != '@' :
```

```
    f.write( str + '\n')
```

```
    str = input()
```

```
f.seek(0,0)
```

```
f.close()
```



```
print()
```

```
#Reading the appended data
```

```
f = open("test.txt", "r")
```

```
str = f.read()
```

```
print("The content of test.txt : \n", str)
```

```
f.close()
```

```
print()
```

```
# DIRECTORIES
```

```
import os
```

```
cwd = os.getcwd()
```

```
print("The current working directory : ",cwd)
```

```
os.mkdir('XYZ')
```

```
os.makedirs('SBL/PYTHON')
```

```
os.mkdir('XYZ/PYTHON')
```

```
os.chdir('SBL')
```

```
cwd = os.getcwd()
```

```
print("The current working directory : ",cwd)
```

```
os.rmdir('PYTHON')
```



Output :

```
Enter the string: Hello World
```

```
The content of test.txt :  
Hello World
```

```
Enter @ to stop:
```

```
Hello World  
Hello Python  
Hello Java  
@
```

```
The content of test.txt :  
Hello World  
Hello Python  
Hello Java
```

```
Enter the string: Hello
```

```
The content of test.txt :  
Hello
```

```
Enter @ to stop:
```

```
World  
@
```

```
The content of test.txt :  
Hello World
```

```
└─ SBL  
  └─ venv library root  
    └─ XYZ  
        └─ PYTHON  
            └─ main.py  
                └─ test.txt
```

```
The current working directory : C:\Users\VIVEK\PycharmProjects\Health Assistant  
The current working directory : C:\Users\VIVEK\PycharmProjects\Health Assistant\SBL
```



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Conclusion:

Exploring directories and files is crucial for understanding how data is organized within a system. It allows users to efficiently locate, manage, and manipulate information, enhancing productivity. By navigating file systems, users can access desired data and perform tasks effectively, optimizing their use of digital resources.