

File manipulation: Pseudocode and Python

Python code for basic file creation and editing.

```
##### Fiel manipulation in python
print("\nTask 3")

filepath = "File2017.txt" #Since this is to be stored in the same directory as the python file, only the name is required with .type
def proc_write():
    f = open(filepath, "w") # opens (or creates) the file (if it does not already exist) (filepath.type, openmode (in thsi case w = write) )

    f.write("Hello world\n") #writes a line
    f.write("Next line") #writes a line
    f.write(" .....and if you dont use the slash n then it writes on the same line\n") #writes a line
    f.close() #closes the file

def proc_read():
    print("\nThe updated file is now: ")

    f = open(filepath, "r") #opens in read mode
    while True:
        a = f.readline() #Reads each line of txt file to a varaible

        if not a: #This stops at the end of the file (when the line has no value)
            break
        else:
            print(a) #Prints the current variable (i.e. line of text)

    f.close() #closes the file

def proc_amend():
    f = open(filepath, "a") # a mode will continue from last line (amend/edit a file)
    f.write("Lets add some more text\n");
    f.close() # Closes the open file

#####
proc_write()
proc_read()
proc_amend()
proc_read()
```

```
Task 3
The updated file is now:
Hello world

Next line .....and if you dont use the slash n then it writes on the same line

The updated file is now:
Hello world

Next line .....and if you dont use the slash n then it writes on the same line

Lets add some more text
```

Pseudocode for this program

PROCEDURE WRITE():

```
myFile = openWrite("File2017.txt.")
myFile.writeLine("Hello World" + NEWLINE)
myFile.writeLine("Next line")
myFile.writeLine(" or wirte on the same line")
myFile.close()
```

END PROCEDURE

PROCEDURE READ():

```
myFile = openRead("File2017.txt")
```

```
WHILE NOT myFile.endOfFile():
```

```
print(myFile.readline() )
```

```
END WHILE
```

```
myFile.close()
```

END PROCEDURE

PROCEDURE EDIT():

```
myFile = openAppend("File2017.txt.")
myFile.writeLine("\n Add new material to the original file")
myFile.close()
```

END PROCEDURE

Print("Begin program: ")

WRITE()

READ()

EDIT()

READ()

Exam board pseudocode:

Reading to and Writing from Files

To open a file to read from openRead is used and readLine to return a line of text from the file.

The following program makes x the first line of sample.txt

```
myFile = openRead("sample.txt")
x = myFile.readLine()
myFile.close()
```

endOfFile() is used to determine the end of the file. The following program will print out the contents of sample.txt

```
myFile = openRead("sample.txt")
while NOT myFile.endOfFile()
    print(myFile.readLine())
endwhile
myFile.close()
```

To open a file to write to openWrite is used and writeLine to add a line of text to the file. In the program below hello world is made the contents of sample.txt (any previous contents are overwritten).

```
myFile = openWrite("sample.txt")
myFile.writeLine("Hello World")
myFile.close()
```

Comments

Comments are denoted by //

```
print("Hello World") //This is a comment
```

