

# Implement various txt / csv file operations

Aim: To write a python program for creating and updating student registration details using txt file operations.

## Algorithm:

Step 1:- Start

Step 2:- Using open() method, create and write text file "myfile.txt" with student details.

Step 3:- Update the new registered student details using append operation in it.

Step 4:- Open the file in read mode and using read() method print the student details.

Step 5:- Using seek method print the particular student record.

Step 6:- Using tell method print the current position of the file.

Step 7:- Close the file

Step 8:- Stop

## Program:

```

file = open('Student1.txt', "w")
input1 = input("Enter columns names\n")
file.write(input1)
file.write("\n")
n = int(input("Enter the no of Students"))
for i in range(0, n):
    input2 = input("Enter students details with for new")
    file.write(input2)
    file.write("\n")
file = open("Student1.txt", "a")
input3 = input("Enter updated Student details\n")
file.write(input3)
file = open("Student1.txt", "r")
print ("Student details using Read function is:")

```

```
Print(file.read())
```

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```
Print("\n")
```

2023/09/01 9:00 AM

```
file.seek(0)
```

(p: 2023/09/01 9:00 AM)

```
Print("The length of first line is: ")
```

p: 2023/09/01 9:00 AM

```
line = file.readline()
```

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```
len = len(line)
```

p: 2023/09/01 9:00 AM

```
Print(len)
```

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```
file.seek(len+1)
```

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```
Print("Output of readings (first student record) function is: ")
```

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```
Print("In find the current position of the pointer: ")
```

p: 2023/09/01 9:00 AM

```
f = file.tell()
```

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```
Print(f)
```

p: 2023/09/01 9:00 AM

```
file.close()
```

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~~Result:- Thus, the python program for creating and updating  
Student registration details using txt file operation  
was executed successfully.~~

## 7.2 Counting Cases

Construct a Python program whose file name is "merge.txt". To illustrate the below content inside of the file.

"Python is a high level language, developed by Guido Van Rossum in 1991" Count the total number of upper case, lower case, and digits used in the text file 'merge.txt'.

Input

file name: merge.txt

Output 5,48,4

# program to count upper case, lower case, and digits in a file.

# Step 1: Create and write content to the file.

with open ("merge.txt", "w") as f:

f.write (" Python is a high level language developed by Guido  
van Rossum in 1991")

# Step 2: Open the file for reading

with open ("merge.txt", "r") as f:

text = f.read ()

# Step 3: Initialize counters

upper\_count = 0

lower\_count = 0

digit\_count = 0

# Step 4: Count upper case, lower case and digits

for char in text:

if char.isupper ():

upper\_count += 1

elif char.islower ():

lower\_count += 1

elif char.isdigit ():

digit\_count += 1

# Step 5 print the result

Output:

Uppercase letters : 5

lowercase letters : 47

Digits : 4

5,47,4

```
# compact output as required  
print("{" . $upper_count . "}" . $lower_count . "}" . $digit_count . ")")
```

0.881 ← 100010  
0.871 ← 100010  
0.861 ← 100010  
0.831 ← 100010

### Task: 7.3

Construct a Python program to read the above table of student grades from a text file (grades.txt) calculate average grade for each student and print out the result as student's name along with their average grade using another text file (result.txt)

# Program to read student's grades from a file, calculate averages and save results.

# Step 1: Read input data from grades.txt with open ("grades.txt", "r") as f:

lines = f.readlines()

# Step 2: Extract number of students

n = int(lines[0].strip())

# Step 3: Extract weights

weights = lines[1].strip().split()

weights = [float(w) for w in weights]

# Step 4: Process each student's data

Student[]

for i in range(2, 2+n):

parts = lines[i].strip().split()

name = parts[0]

marks = [int(m) for m in parts[1:]]

# calculate weighted average

total = 0

for j in range(n):

total = total + marks[j] \* weights[j]

total = round(total, 2))

Students.append((name, round(total, 2)))

# Step 5: write results into result.txt

with open ("result.txt", "w") as f:

for name, avg in Students:

f.write(name + " -> " + str(avg) + "\n")

Average grades have been written to results.txt

Output:

Gaurav  $\rightarrow$  169.0

Absinav  $\rightarrow$  138.0

Harvard  $\rightarrow$  152.0

Jai  $\rightarrow$  163.0

Ravi  $\rightarrow$  188.0

- (a) Declaration of Struct.
- (b) Input Output operation in C.
- (c) Write a program to calculate sum of two numbers without using any symbol like +, -, \*, / etc.
- (d) Write a program to convert binary number to decimal.
- (e) Write a program to convert decimal to binary.
- (f) Write a program to convert octal to decimal.
- (g) Write a program to convert hexa decimal to decimal.
- (h) Write a program to convert decimal to hexa decimal.
- (i) Write a program to convert octal to hexa decimal.

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EX NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
SIGN WITH DATE	

~~Result: Thus a Python program to read the above table of Students grades from a text file was successfully completed.~~