

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 name\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:")
```

output:-

Enter columns name

VTUNo Name AGE

Enter the no of Student 1

Enter students details with for new 2345 keethu 19

Enter updated student detail

6789 Lahari 22

Student details using read function is

VTUNo NAME AGE

2345 keethu 19

6789 Lahari 22

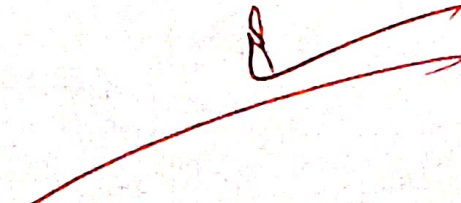
/n

The length of first line is: 15

Output of readings (first student record) function is:

Find the current position of the pointer: 16


```
print(file.read())  
print("\n")  
file.seek(0)  
print("The length of first line is:")  
line = file.readline()  
len = len(line)  
print(len)  
file.seek(len+1)  
print("output of readings (first student record) function is:")  
print("\n find the current position of the pointer:")  
f = file.tell()  
print(f)  
file.close()
```

Result:  Thus, the python program for creating and updating student registration details using 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 uppercase, lowercase, 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 uppercase, lowercase 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

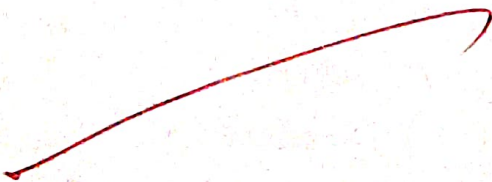
```
print("uppercase letters".upper_count)
```

```
print("lower case letters", lower_count)
```

```
print("Digits", digit_count)
```

Compact output as required

```
print(f"{upper_count}, {lower_count}, {digit_count}")
```



output:-

Upper Case letters: 5

lower case letters: 47

Digit : 4

5, 47, 4



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

Program to read Students' 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
Students = []

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(u):

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

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')

print("Average grades have been written to results.txt")

Output

Gaurav - 169.0

Abinav \rightarrow 138.0

Jai - 163.0

Ravi - 188.0

Harvard - 152.0

VEL TECH	
SR. NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	
WITH DATE	15

Result:- This a python program to read the above table of students grades from a text file was
 Successfully Completed