

17/9/23

Task 8. Implement various text/csv file operations.

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

Algorithm:

- 1) Start
- 2) Using open() method, create & write text file 'myFile.txt' with student details.
- 3) Update the new registered student details using append operation in it
- 4) Open the file in read mode and using read() method print the student details.
- 5) Using seek method print the particular student record
- 6) Using tell method print the current position of the file
- 7) Close the file
- 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 student details with for new')
```

```
file.write(input2)
```

```
file.write("\n")
```

```
file = open('Student1.txt', 'a')
```

```
input3 = input('Enter updated students details\n')
```

```
file.write(input3)
```

```
file = open('Student1.txt', 'r')
```

```
print('Student details using read function is:')
```

```
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)
print("Output of readline (first student record) function is:")
print(file.readline())
print("To find current position of file pointer")
F = file.tell()
print(F)
file.close()
```

Result: Thus, the python program for creating and updating student registration details using txt file operations we enclosed successfully.

8.2 Counting case
Construct a 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 uppercase
lowercase and digits used in the text file "merge.txt".

Input:

filename: merge.txt

program to count uppercase 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, development
by Van Rossum in 1991")

Step 2: Open the file reading

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

Step 3: Initialize counters

Upper count = 0

Lower count = 0

Step 4: Count uppercase, lowercase, and
digits

for char in text:

if char.isupper():

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('Digit - count')

compare out as required

print which tag is the following of
mark / grade or four assign to five student
print(f'Upper - count: {lower - count}; {digit - count}')

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

Program

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:]]

output

HI I AM CREATED BY A FUNCTION
PASSED AS AN ARGUMENT

hi, i am created by a function passed as an
argument.

Calculate weight average
total = 0

for j in range(4)

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

result.append((name, round(total/4)))

Step 5: Write result 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 result.txt")

VEL TECH	
EX NO.	8
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	
SIGN WITH DATE	20

Result: Thus the counting takes the programme file name is
the 'merge.txt'.