

Dt: 10/09/20

Task 7: 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 and 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's details with for new")
    file.write(input2)
    file.write("\n")
```

```
file = open("Student1.txt", "a")
input3 = input("Enter updated student's 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 :")
```

Output:
Enter column name
VTUNO NAME AGE
Enter the no. of students2
Enter student details with for new & 28598 Neela 19
Enter Student details with for new 27804 Eswari 18
Enter the updated student details
29853 Divya 20
Student details using the function is ;

VTUNO	Name	AGE
28598	Neela	19
27804	Eswari	18
29853	Divya	20

The length of the first line is :

15

output of the readline (first student record) function is :
28598 Neela 19

find the current position of the file pointer:

32

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

```
len = len(line)
Print(len)
file.seek(1)
Print("Output of Readline(first student record) function is:")
Print(file.readline())
Print("To find the current position of the file pointer:")
f = file.tell()
Print(f)
file.close()
```

Result:- Thus, the python program for creating and updating student registration details using text file operations were executed successfully.

2.2 Counting Cases

construct a python program whose file name is "merge.txt".
To illustrate the below content inside of 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:

file name : merge.txt

Output : 5,4814

Program to count uppercase, lowercase and digits in a file (merge.txt)

step1: 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")

step2: Open the file for reading

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

text = f.read()

step3: Initialize counters

upper_count = 0

lower_count = 0

digit_count = 0

step4: 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

step5: Print the result

Print ("Uppercase letters:", upper_count)

Print ("Lowercase letters:", lower_count)

Print ("Digits:", digit_count)

e.g., lower_count & digit_count &

Output:

Uppercase letters : 15

Lowercase letters : 48

Digits : 4

5, 48, 4

Q.3

0.2 0.3 0.4 0.5
Gaurav 100 80 90 75
Abhinav 20 50 60 90
Harvard 60 80 50 100
Jai 70 80 60 90

construct a python program to read the above table of students grades from a text file (grades.txt) calculate average grade for each student and print out the result as students name along with their average grade using another text file (results.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, n+1):
    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]
    Students.append((name, round(total, 2)))

# step 5 : write results into results.txt
with open("results.txt", "w") as f:
    for name, avg in students:
        f.write(name + " -> " + str(avg) + "\n")
```

Output:

Gaurav \rightarrow 85.5

Abhinav \rightarrow 63.5

Harrusd \rightarrow 75.0

Jai \rightarrow 77.0

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VEL TYP - USE	
C NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
IVA VOCE (3)	5
ECORD (4)	5
OTAL (15)	
GN WITH DATE	X5

Result:

Thus a python program whose file name is "merge.txt" was successfully created.