Enter the columns name

VTUNO NAME AGE

Enter student details with for new

29853 Divya 18

Enter student details with for new

29854 Siddu 19

Enter student details of updated

28598 Neela 19

Student details using read function is:

VTUNO NAME AGE

29853 DIVYA

SIIDU

29854

28598 NEELA

Task 4- Implement various txt/csv file operations

Aim:- To write a python program for creating and updating student registration details using txt 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 into it.

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

5. Using seek method print the current position of the file.

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")
```

```python
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+1)
print("Output of Readline(first student record) function is:")
print(file.readline())

print("\nfind the 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 was executed successfully.

upper case letters: 5
lowercase letters: 47
Digit: 4
5, 47, 4

Aim:- To 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".

Algorithm:-

1. Create a file named merge.txt
2. Write the given text into it:
   Python is a High level language, developed by Guide Van Rossum in 1991.
3. Read the Content from the file.
4. Count the uppercase letters, lowercase letters, and digits.
5. Display the counts.
6. Stop

```
# Program to Count uppercase, lowercase and digits
in a file(merge.txt)

# 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")

# Step2: 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
```

```python
# Step 4: Count uppercase, lowercase, and digits
for char in text:
    if char.isupper():
        upper_count += 1
    elif char.isdigit():
        digit_count += 1      # lower
    elif char.is
```

```python
# Step 5: Print the result
    elif char.islower():
        lower_count += 1
    elif char.isdigit():
        digit_count += 1
```

```python
# Step 5: Print the result
print("Uppercase letters:", upper_count)
print("Lowercase letters:", lower_count)
print("Digits:", digit_count)
```

```python
# Compact output as required
print(f"{upper_count},{lower_count},{digit_count}")
```

Result :- Thus a python program whose file name is "merge.txt" was successfully executed.

Gaurav – 169.0
Abinav → 188.0
Jai – 163.0
Ravi – 188.0
Harvard – 152.0

● Task No :- 7.3

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

Aim :-

Gro	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

Aim :- To construct a python program to read the abo -ve table of students grades from a text file.

Algorithm :-

1. Start
2. Open the input file grades.txt in read mode
3. Read all the lines from the file.
4. For each line in the file:
   a. Split the line into parts.
   b. Convert the grades from string to integers
   c. Calculate the Average = (sum of grades) ÷ (number of grades).
   d. Store the student's name along with the average grade.
5. Open another file results.txt in write mode.
6. Write each student's name and average grade into result.txt.
7. Close both files
8. Stop.

Program :-

```
# 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()
```

```python
# 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(4):
        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")
```

EX NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	
SIGN WITH DATE	15

Result :- Thus a python program to read the above table of students grades from a text file was successfully implemented.