Task :-

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 details -
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 txt file operation was executed Successfully.

6.2 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, 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
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

Task:- 7.3

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
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(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")
```

Output

Gaurav - 169.0
Abinav → 138.0
Jai - 163.0
Ravi - 188.0
Harvard - 152.0

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

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