6. Implement Various text/csv file operations

Aim: To write a Python Program for creating and updating student registration details using text file operation.

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. Using seek method Print the particular student record
5. Using tell method Print the current Position of the file
6. Close the file
7. 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 students details\n")
file.write(input3)
```

output

Exception objects are thrown when runtime errors occur the exception objects can also be used as a base object for user-defined exceptions

```
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 Program for creating and updating student registration

6.2 Counting Cases

Construct a Python Program whose file name is "merge.txt" to illustrate the below content inside of the file.

Program

```
with open("merge.txt","w") as f:
f.write("Python is a high level language developed by Guido Van Rossum in 1991")
with open("merge.txt","r") as f:
    text = f.read()
upper_count = 0
lower_count = 0
digit_count = 0
for char in text:
    if char.isupper():
        upper_count += 1
    elif char.islower():
        lower_count += 1
    elif char.isdigit():
        digit_count += 1
Print("Uppercase letters:", upper_count)
Print("lowercase letters:", lower_count)
Print("Digits:", digit_count)
Print(f"{upper_count}, {lower_count}, {digit_count}")
```

output

number of lines with 'Error' is2

Output

Name: Alice, Department: HR

Name: Bob, Department: Engineering

Name: Charlie Department: Finance

Construct a Python Program to read the above table of stude grades from a text file calculate average grade for each student and Print out the result as students name along with their average grade using another text file

Program:

```
with open("grades.txt", "r") as f:
    lines = f.readlines()
n = int(lines[0].strip())
weights = lines[1].strip().split()
weights = [float(w) for w in weights]
student = []
for i in range(2, 2+n):
    parts = lines[i].strip().split()
    name = parts[0]
    marks = [int(m) for m in parts[1:]]
total = 0
for j in range(4):
    total = total + marks[j] + weights[j]
    students.append((name, round(total/2)))
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")
```

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