Lab Assignment 1 : Abhijit Jadhav(Roll Number = 821) H1 Div

Take/Prepare any text files for any real life application. For Ex. “Stud.txt”, “Placement.csv” and “Result.csv” files for result Analysis. Combine into “StudentDetails.csv”. Perform all statistical analysis (Average, Max, Min, Count, Sum, Percentage) on it

1.Read Student Info File

```
    # Read File

file=open('stud_info.csv','r')
info_dataset=[]
while True:
        data=file.readline()
        if data:
                info_dataset.append(data.replace("\n", "").split(','))
        else:
                break
print(info_dataset)
```

```
[['Roll No', 'name', 'Gender', 'DOB'], ['1', 'John', 'Male', '05-04-1988'], ['2', 'Mayur', 'Male', '04-05-1987'], ['3', 'Mangesh', 'Mal
```

```
RollNo=[]
Name=[]
Gender=[]
DOB=[]
for row in info_dataset[1:]:
        RollNo.append(row[0])
        Name.append(row[1])
        Gender.append(row[2])
        DOB.append(row[3])

print(RollNo)
print(Name)
print(Gender)
print(DOB)
```

```
['1', '2', '3', '4', '5', '6', '7', '8', '9', '10'] ['John', 'Mayur', 'Mangesh', 'Jessica', 'Jennifer', 'Ramesh', 'Suresh', 'Ganesh', 'Komal', 'Mayuri'] ['Male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Female', 'Female'] ['05-04-1988', '04-05-1987', '25-05-1989', '12-08-1990', '02-09-1989', '03-09-1989', '04-09-1990', '05-10-1989', '06-09-1989', '07-02-1
```

2. Read Student Marks

```
# Read Student Marks
file=open('student_marks.csv','r')
```

```
marks_dataset=[]
while True:
        data=file.readline()
        if data:
                marks_dataset.append(data.replace("\n", "").split(','))
                else:
                        break
print(marks_dataset)
```

```
[['Roll', 'Maths', 'Physics', 'Chemistry', 'Total', 'Percentage'], ['1', '55', '45', '56', '156', '52.00'], ['2', '75',
'55', '55', '18
```

```
Maths=[]
Physics=[]
Chemistry=[]
Total=[]
Percentage=[]

for row in marks_dataset[1:]:
        Maths.append(row[1])
        Physics.append(row[2])
        Chemistry.append(row[3])
        Total.append(row[4])
        Percentage.append(row[5])

print(Maths)
print(Physics)
print(Chemistry)
print(Total)
print(Percentage)
```

```
['55', '75', '25', '78', '58', '88', '56', '54', '46', '89'] ['45', '55', '54', '55', '96', '78', '89', '55', '66', '87']
['56', '55', '89', '86', '78', '58', '69', '88', '65', '54'] ['156', '185', '168', '219', '232', '224', '214', '197',
'177', '230'] ['52.00', '61.67', '56.00', '73.00', '77.33', '74.67', '71.33', '65.67', '59.00', '76.67']
```

3. Read Student Placement File

```
# Read Student Marks
file=open('stud_placement.csv','r')
placement_dataset=[]
while True:
        data=file.readline()
        if data:
                placement_dataset.append(data.replace("\n", "").split(','))
                else:
                        break
```

```
print(placement_dataset)
```

```
[['Roll No', 'Company', 'JobRole', 'Package'], ['1', 'Infosys', 'Data Analyst', '10.2'], ['2', 'TCS', 'Java Developer', '9.6'], [
```

```
Company=[]
JobRole=[]
Package=[]
for row in placement_dataset[1:]:
        Company.append(row[1])
        JobRole.append(row[2])
        Package.append(row[3])

print(Company)
print(JobRole)
print(Package)
```

```
['Infosys', 'TCS', 'TCS', 'Infosys', 'Oracle', 'Oracle', 'TCS', 'Infosys', 'Mindtree', 'Mindtree'] ['Data Analyst', 'Java Developer', 'Data Scientist', 'Data Analyst', 'Java Developer', 'Data Scientist', 'Tester', 'Tester', 'Database ['10.2', '9.6', '12.60', '10.2', '9.6', '12.60', '6.50', '6.51', '8.30', '8.31']
```

```
studentdata=[]
studentdata.append(RollNo)
studentdata.append(Name)
studentdata.append(Gender)
studentdata.append(DOB)
studentdata.append(Maths)
studentdata.append(Physics)
studentdata.append(Chemistry)
studentdata.append(Total)
studentdata.append(Percentage)
studentdata.append(Company)
studentdata.append(JobRole)
studentdata.append(Package)
```

```
'Female'], ['05-04-1988', '04-05-1987', '25-05-1989', '12-08-1990', '02-09-1989', '03-09-1989', '04-09-1990', '05-10-1989', '06-09-1989', '07-02-1988'], ['55', '75', '25', '78', '58', '88', '56', '54', '46', '89'], ['45', '55', '54', '55', '96', '78', '89', '55', '66', '87'], ['56', '55', '89', '86', '78', '58', '69', '88', '65', '54'], ['156', '185', '168', '219', '232', '224', '214', '197', '177', '230'], ['52.00', '61.67', '56.00', '73.00', '77.33', '74.67', '71.33', '65.67', '59.00', '76.67'], ['Infosys', 'TCS', 'TCS', 'Infosys', 'Oracle', 'Oracle', 'TCS', 'Infosys', 'Mindtree', 'Mindtree'], ['Data Analyst', 'Java Developer', 'Data Scientist', 'Data Analyst', 'Java Developer', 'Data Scientist', 'Tester', 'Tester', 'Database Admin', 'Database Admin'], ['10.2', '9.6', '12.60', '10.2', '9.6', '12.60', '6.50', '6.51', '8.30', '8.31']]
```

4 Writing Data to New File

```
fw=open("StudentDetails.csv","w")
data_to_write=[]
for i in range(len(studentdata[0])): # 10 rows
        row=list()
        for j in range(len(studentdata)):#12 col
                data=studentdata[j][i]
                row.append(data)
        row.append('\n')
        data_to_write.append(",".join(row))


data_to_write
```

```
['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n', '4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n',
```

5 Statistical Operation

```
# 1. Sum of Marks
# 2. Average Marks

print("Math Marks=",Maths)
print("Phyics Marks=",Physics)
print("Chemistry Marks=",Chemistry)
math=[int(i) for i in Maths]
physics=[int(i) for i in Physics]
chemistry=[int(i) for i in Chemistry]
sum_of_marks=[]
avg=[]
for i in range(len(math)):
        sum_of_marks.append(math[i]+physics[i]+chemistry[i])
        avg.append(round(sum_of_marks[i],2))
print("Sum of Marks=",sum_of_marks)
print("Average Marks=",avg)
```

```
 Math Marks= ['55', '75', '25', '78', '58', '88', '56', '54', '46', '89'] Phyics Marks= ['45', '55', '54', '55', '96', '78', '89', '55', '66', '87'] Chemistry Marks= ['56', '55', '89', '86', '78', '58', '69', '88', '65', '54'] Sum of Marks= [156, 185, 168, 219, 232, 224, 214, 197, 177, 230] Average Marks= [156, 185, 168, 219, 232, 224, 214, 197, 177, 230]
```

```
# 3. maximum marks

print("Maximum Marks=",max(avg))
```

Maximum Marks= 232

```
# 4. minimum marks

print("Minimum Marks=",min(avg))
```

Minimum Marks= 156

```
# 5. total number of students

print("Total No of Student=",len(studentdata[0]))
```

Total No of Student= 10

```
# 6. PercentAGE

#assumne maths marks=90 , physics=90 , chemistry=90
per=[]
for i in range(len(sum_of_marks)):
        per.append(round((100*sum_of_marks[i]/270),2))
print("Percentage=",per)
```

Percentage= [57.78, 68.52, 62.22, 81.11, 85.93, 82.96, 79.26, 72.96, 65.56, 85.19]

```
fw.close()
```

THANK-YOU