Lab Assignment 1:

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

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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)

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)
# 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)
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)
# 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)
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)
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)
studentdata
# 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
fw.writelines(data_to_write)
fw.close()
# 5. Statistical analysis (Average, Max, Min, Count, Sum, Percentage)
#1. Average package
package=studentdata[11:][0]
total_student=len(studentdata[11:][0])

# Converting String value to float
Num_package=[float(i) for i in package]
print('Average Package= ',sum(Num_package)/total_student)
# 2.Min Package
print('Minimum Package= ',min(Num_package))
# 3.Max Package
print('Minimum Package= ',max(Num_package))
# 4.Sum
print("Math Marks=",studentdata[4])
print("Physics Marks=",studentdata[5])
print("Chemistry Marks=",studentdata[6])
# Converting String value to int
Math_Marks=[int(i) for i in studentdata[4]]
Physics_Marks=[int(i) for i in studentdata[5]]
Chemistry_Marks=[int(i) for i in studentdata[6]]
```

```
#Total marks=

Totalmarks=[]

for i in range(len(studentdata[4])):

   Totalmarks.append(Math_Marks[i]+Physics_Marks[i]+Chemistry_Marks[i])

print("Total Marks=",Totalmarks)

# 5. Percentage

percentage=[round(marks/3,2) for marks in Totalmarks]

print("Percentage=",percentage)


# Count

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

print("No of Attribute=",len(studentdata))
```