

```
# NISHANT RAJAT , 577, E4

# 1.Read student information 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 Mark

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
```

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# 4.Writing Data to New File
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```
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))
```

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data_to_write
```

```
fw.writelines(data_to_write)
```

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# 5.MATHEMATICAL ANALYSIS
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```
# 1. Sum of Marks
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```
# 2. Average Marks
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```
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)
```

```
# 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
#assume 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)
```

```
[[['Roll No', 'name', 'Gender', 'DOB'], ['1', 'John', 'Male', '05-04-1988'], ['2', 'Mayur', 'Male', '04-05-1987'], ['3', 'Mange', '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',
[['Roll', 'Maths', 'Physics', 'Chemistry', 'Total', 'Percentage'], ['1', '55', '45', '56', '156', '52.00'], ['2', '75', '55',
['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']
[['Roll No', 'Company', 'JobRole', 'Package'], ['1', 'Infosys', 'Data Analyst', '10.2'], ['2', 'TCS', 'Java Developer', '9.6']
['Infosys', 'TCS', 'TCS', 'Infosys', 'Oracle', 'Oracle', 'TCS', 'Infosys', 'Mindtree', 'Mindtree']
['Data Analyst', 'Java Developer', 'Data Scientist', 'Data Analyst', 'Java Developer', 'Data Scientist', 'Tester', 'Tester', '
['10.2', '9.6', '12.60', '10.2', '9.6', '12.60', '6.50', '6.51', '8.30', '8.31']
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3/3