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Roll-510  
Div=E1

```
#Read File
file=open('/content/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',

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-

#Read Student Marks
File=open('/content/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',

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']
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#Read Student Marks
file=open('/content/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'], ['3

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', 'Datab
['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)

studentdata

[['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',
  'Male',
  'Female',
  'Female'],
 ['05-04-1988',
  '04-05-1987',
  '25-05-1989',
  '12-08-1990',
  '02-09-1989',
  '03-09-1989',

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'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',

```

```
fw=("/content/stud_info.csv", "w")
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```

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)
        data_to_write.append(",".join(row))

```

```
data_to_write
```

```

['1',
'1,John',
'1,John,Male',
'1,John,Male,05-04-1988',
'1,John,Male,05-04-1988,55',
'1,John,Male,05-04-1988,55,45',
'1,John,Male,05-04-1988,55,45,56',
'1,John,Male,05-04-1988,55,45,56,156',
'1,John,Male,05-04-1988,55,45,56,156,52.00',
'1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys',
'1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst',
'1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2',
'2',
'2,Mayur',
'2,Mayur,Male',
'2,Mayur,Male,04-05-1987',
'2,Mayur,Male,04-05-1987,75',
'2,Mayur,Male,04-05-1987,75,55',
'2,Mayur,Male,04-05-1987,75,55,55',
'2,Mayur,Male,04-05-1987,75,55,55,185',
'2,Mayur,Male,04-05-1987,75,55,55,185,61.67',
'2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS',
'2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer',
'2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6',
'3',
'3,Mangesh',
'3,Mangesh,Male',
'3,Mangesh,Male,25-05-1989',
'3,Mangesh,Male,25-05-1989,25',
'3,Mangesh,Male,25-05-1989,25,54',
'3,Mangesh,Male,25-05-1989,25,54,89',
'3,Mangesh,Male,25-05-1989,25,54,89,168',
'3,Mangesh,Male,25-05-1989,25,54,89,168,56.00',
'3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS',
'3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist',
'3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60',
'4',
'4,Jessica',
'4,Jessica,Female',
'4,Jessica,Female,12-08-1990',
'4,Jessica,Female,12-08-1990,78',
'4,Jessica,Female,12-08-1990,78,55',

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'4,Jessica,Female,12-08-1990,78,55,86',
'4,Jessica,Female,12-08-1990,78,55,86,219',
'4,Jessica,Female,12-08-1990,78,55,86,219,73.00',
'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys',
'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst',
'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2',
'5',
'5,Jennifer',
'5,Jennifer,Female',
'5,Jennifer,Female,02-09-1989',
'5,Jennifer,Female,02-09-1989,58',
'5,Jennifer,Female,02-09-1989,58,96',
'5,Jennifer,Female,02-09-1989,58,96,78',
'5,Jennifer,Female,02-09-1989,58,96,78,232',
'5,Jennifer,Female,02-09-1989,58,96,78,232,77.33',
'5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle',

# 1. sum of Marks
# 2. Average Marks
print("Math Marks=",Maths)
print("Physics 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=[]
average=[]
for i in range(len(math)):
    sum_of_marks.append(math[i]+physics[i]+chemistry[i])
    average.append(round(sum_of_marks[i],2))
print("Sum of Marks=",sum_of_marks)
print("Average Marks=",average)

Math Marks= ['55', '75', '25', '78', '58', '88', '56', '54', '46', '89']
Physics 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]
Average Marks= [156]
Sum of Marks= [156, 185]
Average Marks= [156, 185]
Sum of Marks= [156, 185, 168]
Average Marks= [156, 185, 168]
Sum of Marks= [156, 185, 168, 219]
Average Marks= [156, 185, 168, 219]
Sum of Marks= [156, 185, 168, 219, 232]
Average Marks= [156, 185, 168, 219, 232]
Sum of Marks= [156, 185, 168, 219, 232, 224]
Average Marks= [156, 185, 168, 219, 232, 224]
Sum of Marks= [156, 185, 168, 219, 232, 224, 214]
Average Marks= [156, 185, 168, 219, 232, 224, 214]
Sum of Marks= [156, 185, 168, 219, 232, 224, 214, 197]
Average Marks= [156, 185, 168, 219, 232, 224, 214, 197]
Sum of Marks= [156, 185, 168, 219, 232, 224, 214, 197, 177]
Average Marks= [156, 185, 168, 219, 232, 224, 214, 197, 177]
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. Max Marks
print("Maximum Marks=",max(average))

Maximum Marks= 232

# 4. Min Marks
# max Marks
print("Maximum Marks=",min(average))

Maximum Marks= 156

# 5. Count total no of student
print("Total No of Student=",len(studentdata[0]))

Total No of Student= 10

#6. Percentage
#assume math marks=90, physic=90,chem=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]
Percentage= [57.78, 68.52]
Percentage= [57.78, 68.52, 62.22]

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