Assignment 1

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PRN : 202201060014

Roll No : 331

Batch : C2

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# read file
f1=open('/content/stud_info_2.csv','r')
info_dataset=[]
while True:
    data=f1.readline()
    if data:
        info_dataset.append(data.replace("\n","").split(','))
    else:
        break
print(info_dataset)
print(info_dataset[1])

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)

f2=open('/content/stud_placement_1.csv','r')
placement_dataset=[]
while True:
  data=f2.readline()
  if data:
    placement_dataset.append(data.replace("\n","").split(','))
  else:
     break
print(placement_dataset)

RollNo=[]
Company=[]
JobRole=[]
Package=[]

for row in placement_dataset[1:]:
   RollNo.append(row[0])
   Company.append(row[1])
   JobRole.append(row[2])
   Package.append(row[3])

print(RollNo)
print(Company)
print(JobRole)
print(Package)

f3=open('/content/student_marks_2.csv','r')
marks_dataset=[]
while True:
  data=f3.readline()
  if data:
    marks_dataset.append(data.replace("\n","").split(','))
  else:
     break
print(marks_dataset)

Math=[]
Physics=[]
Chemistry=[]
Total=[]
Percentage=[]

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

print(Math)
print(Physics)
print(Chemistry)
print(Total)
print(Percentage)

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

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()

# 1.Sum of Marks
# 2.Average Marks
print("Math marks=",Math)
print("Physics Marks=",Physics)
print("Chemistry Marks=",Chemistry)
Math=[int(i) for i in Math]
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. Max Marks
print("Maximum Marks",max(avg))

# 4. Min marks
# Max Marks
print("Maximum Marks=",min(avg))

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

# 6. Percentage
# Assume math marks=90, physics=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)
```

Output

```
[['1', 'anushka', 'female', '3-04=2002'], ['2', 'shardul', 'male', '3-
07=2003'], ['3', 'suyash', 'male', '3-08=2004'], ['4', 'nikita',
'female', '3-04=2005'], ['5', 'ganesh', 'male', '3-04=2006']]
['2', 'shardul', 'male', '3-07=2003']
['2', '3', '4', '5']
['shardul', 'suyash', 'nikita', 'ganesh']
['male', 'male', 'female', 'male']
['3-07=2003', '3-08=2004', '3-04=2005', '3-04=2006']
[['1', 'accenture', 'female', '3-04=2002'], ['2', 'deloittee', 'male',
'3-07=2003'], ['3', 'yesbank', 'male', '3-08=2004'], ['4', 'flipkart',
'female', '3-04=2005'], ['5', 'tcs', 'male', '3-04=2006']]
['2', '3', '4', '5']
['deloittee', 'yesbank', 'flipkart', 'tcs']
['male', 'male', 'female', 'male']
['3-07=2003', '3-08=2004', '3-04=2005', '3-04=2006']
[['Roll', 'Maths', 'Physics', 'Chemistry', 'Total', 'Percentage'],
['1', '65', '35', '56', '156', '52'], ['2', '85', '58', '55', '198',
'61.67'], ['3', '35', '54', '89', '178', '56'], ['4', '88', '85', '86',
'259', '73'], ['5', '68', '68', '78', '214', '77.33'], ['6', '98',
'75', '58', '231', '74.67'], ['7', '66', '96', '69', '231', '71.33'],
['8', '44', '41', '88', '173', '65.67'], ['9', '56', '38', '65', '159',
'59'], ['10', '78', '65', '54', '197', '76.67']]
['65', '85', '35', '88', '68', '98', '66', '44', '56', '78']
['35', '58', '54', '85', '68', '75', '96', '41', '38', '65']
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['56', '55', '89', '86', '78', '58', '69', '88', '65', '54']
['156', '198', '178', '259', '214', '231', '231', '173', '159', '197']
['52', '61.67', '56', '73', '77.33', '74.67', '71.33', '65.67', '59',
'76.67']
[['2', '3', '4', '5'], ['shardul', 'suyash', 'nikita', 'ganesh'],
['male', 'male', 'female', 'male'], ['3-07=2003', '3-08=2004', '3-
04=2005', '3-04=2006'], ['65', '85', '35', '88', '68', '98', '66',
'44', '56', '78'], ['35', '58', '54', '85', '68', '75', '96', '41',
'38', '65'], ['56', '55', '89', '86', '78', '58', '69', '88', '65',
'54'], ['156', '198', '178', '259', '214', '231', '231', '173', '159',
'197'], ['52', '61.67', '56', '73', '77.33', '74.67', '71.33', '65.67',
'59', '76.67'], ['deloittee', 'yesbank', 'flipkart', 'tcs'], ['male',
'male', 'female', 'male'], ['3-07=2003', '3-08=2004', '3-04=2005', '3-
04=2006']]
Math marks= ['65', '85', '35', '88', '68', '98', '66', '44', '56',
'78']
Physics Marks= ['35', '58', '54', '85', '68', '75', '96', '41', '38',
'65']
Chemistry Marks= ['56', '55', '89', '86', '78', '58', '69', '88', '65',
'54']
Sum of Marks= [156, 198, 178, 259, 214, 231, 231, 173, 159, 197]
Average Marks= [156, 198, 178, 259, 214, 231, 231, 173, 159, 197]
Maximum Marks 259
Maximum Marks= 156
Total No of student= 4
percentage= [57.78, 73.33, 65.93, 95.93, 79.26, 85.56, 85.56, 64.07,
58.89, 72.96]
```

Used CSV Files.

1) Student_info_2.csv
   https://drive.google.com/file/d/1ZiCNSbupN0Oewk9XmCjuCoDfT2LUvXNG/view?usp=drivesdk

2) Stud_placement_1.csv
   https://drive.google.com/file/d/1ZlMD8_bFlxMXl3pNFTpBtuKIFBQVMQKJ/view?usp=drivesdk

3) Student_marks_2.csv
   https://drive.google.com/file/d/1Zhiawmde64KA3tNRw3mbR5y7t-jrIfzc/view?usp=drivesdk

   Created CSV file in output:
   https://drive.google.com/file/d/1ZuPLqAiM58j0wyI34inTnXM7X11POI7n/view?usp=drivesdk