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**ROLL NO. : 762**

**PRN : 202201090103**

**DIV : G3**

Lab Assignment:

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



# Read Student Info File

|  |  |
| --- | --- |
| # Read File file-open( ' student\_info.csv' , ' r ' )    while True: data-file . readline() if data: info\_dataset . append (data . replace ("\n", else: break  print  (info\_dataset) | 11 ) . split( ' , ' ) ) |

[ [ ' Roll No. ' , 'Name' , 'Gender' ,DOB' ], [ ' 101 ' , ' Rahul' ,  [ ' 102 '

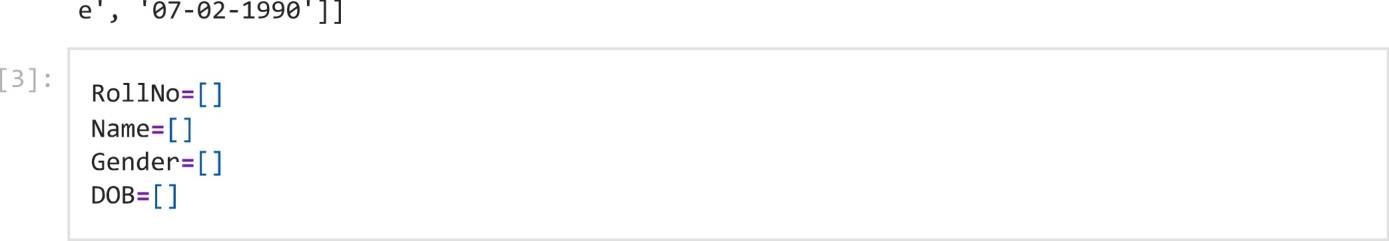
,

' Aditya' ,[ ' 103 ' , 'Omkar' , ' ' 03-09-1990' ] , [ ' 104 ' , ' Abhije

'Male % [ ' 105 ' , 'Pooja ' ' Female' , ' 07-02-1990' ] , [ ' 106 ' , 'Shruti ' , ' Female' , ' 08-06-1991 ' ] , [ ' 107 ' , ' Nikita ' , ' Female' ,  [ ' 108 ' , 'Ganesh' , ale ' , ' 04-09-1990' ] , [ ' 109 ' , ' Mayuri ' Female' , ' 14-05-1988 ] , [ ' 110 ' , 'Shrikant ' , ' Mal







'07-02-1990' ] ]

|  |
| --- |
| for row in info\_dataset [1 : ] :  RollNo.append(row[0] ) Name. append(row[l])  Gender. append (row[2] )  DOB. append ( row[3] ) |
| print(R011No) print (Name) print (Gender) print (DOB) |

[ ' 101 ' , ' 102 ' , ' 103 ' , ' 104' , ' 105 ' , ' 106 ' , ' 107 % ' 108 ' , ' 109 ' , ' 110 ' ]

[ ' Rahul' , 'Aditya' , 'Omkar' , 'Abhijeet' , ' Pooja' , 'Shruti' , ' Nikita ' , 'Ganesh' , '

Mayur i ' , 'Shrikant' ]

[ ' Male ' , 'Male ' , 'Male' , 'Male' , ' Female' , ' Female' , ' Female' , 'Male' , ' Female' , 'Male ' ] [ '08-04-1991 ' , ' 12-03-1990 ' , '03-09-1990' , ' 12-11-1989 ' , '07-02-1990 ' , '08-06-1991

' , ' 21 -07-1992' , ' 04-09-1990' , ' 14-05-1988 ' ,

# Read Student Marks



|  |
| --- |
| # Read Student Marks file=open(  ' student\_marks . csv' , ' r '    while True: data-file . readline() if data:  marks\_dataset . append (data . replace( " \n" ,   ) . split( ' , ' )) else:  break print  (marks\_dataset) |

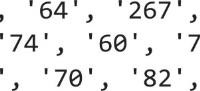
[ [ ' Roll No. , 'Maths' , 'Physics ' , 'Chemistry' , ' English ' , 'Total' , ' Percentage' ],

' 56 ' , ' 89 ' ,' 74 ' ,' 80 ' ,' 299 ' ,' 74. 75 ' ] ' [ ' 102 ' , ' 60 ' , ' 75 ' , ' 86 , ' 79 ' , ' 300 ' ,

[ ' 103 ' ,' 56 ' ,' 75 ' ,' 72 ' , ' 66 . 75 ' ] , [ ' 104% ' 56 ' ,' 66 ' ,



' 96 . 67 ' ] , [ ' 105 ' , ' 64 ,' 273 ' ,' 68 . 25 ' ] , [ ' 106 ' , '

69 ' , ' 85 ' , 

' 59 ' , ' 272 ' , '68 ] [ ' 107 %'66 % ' 292 ' ,[ ' 108 ' ,' 75 ' ,

' 8

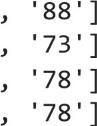
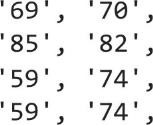
' 81 ' , ' 83 ' 320 ' , [ ' 109 ' , ' 89 ' ,' 89 ' , ' 331 ' , '



82 . 75 ' ] , [ ' 110 ' , ' 88 ' , ' 73 ' , ' 78 ' , ' 329 ' , ' 82 . 25 ' ] ]



|  |
| --- |
| Maths=[] Physics=[]  Chemistry=[] English=[]    Percentage=[] |



|  |
| --- |
| for row in marks\_dataset[l: ] :  Maths.append(row[l])  Physics. append (row [2])  Chemistry. append (row[3] )  English. append (row[3])  Total . append (row [4] )  Percentage . append (row[5]) |
| print (Maths) print (Physics) print (Chemistry) print(Eng1ish) print(Tota1) print  (Percentage) |

[ ' 56 ' ,' 60 ' ,' 56 ' , ' 78 ' , ' 64' ,' 75 ' , ' 89 ' ,



[ ' 89 ' , ' 75 ' , ' 75 '' 74 ' , ' 81 ' , ' 76 ' ,

[ ' 74 ' ,' 86 ' ,' 72 ' , ' 56 ' , ' 60 ' ,' 81 ' , ' 77 '

[ ' 74 ' ,' 86 ' , ' 72 ' , ' 56 ' ' 60 ' ,' 81 ' , ' 77 '



[ ' 80 ' , ' 79 ' , ' 64 '

' 320 ' ,' 331 ' , ' 329

' ]

[ ' 299 ' ,' 300 ' , ' 267 ' , ' 290 ' , ' 273 '  , '

272'' 292 %

# Read Student Placement File

In [13] In [15] :

:

In [17] :

n 14 ] :

# Read Student Marks eer' , '7 6 ] file-open( ' [ ' 103 ' , ' Accentur student\_placement.csv' , ' r )

' Engineer Trainee' ' 4. 25 ' ] ' [ '104% 'Cognizant' , ' Engineer Trainee' [ ' 105 ' ,

'TCS' , 'Software Developer' , [ ' 106 ' , 'Siemens ' , 'Cloud Engineer' , ' 5 ] [ ' 107 ' , 'K while True:

dataPMG' 'Dev ops Engineer' , '10 ]-file . readline()  [ ' 108 ' , ' Infosys' , 'Data Analyst ' , ' 9 . 5 ' ] , [ ' if data:109 ' , ' 1B



placement\_dataset. append (data.

else: 'Machine learning Engineer' , ' 12 . 5 ' ] , [ ' 110 ' , 'Wipro' , 'Data Analyst' ,

break Company=[]

print(placement\_dataset) '

Package=[]

[ [

for row in placement\_dataset [1 : ] :

'Roll Company. append (row

No. ' , JobR01e.append(row[2]) 'Comp Package. append (row any' , print(Company) 'JobR0 print(JobR01e)

1e' , ' print(Package)

|  |  |
| --- | --- |
| Packa |  |
| ge in LPA' ],  [ ' 101  ' , 'Oracl  e' , ' | [ 'Oracle' , 'Deloitte' , 'Accenture' 'Cognizant' , 'TCS' , 'Siemens ' , 'KPMG' , '  Infosys ' , ' I BMI , 'Wipro' ]  [ ' Java developer' , 'Graduate Software Engineer' , ' Engineer Trainee' ' Engineer Trainee' , ' Software Developer' , 'Cloud Engineer' 'Dev ops Engineer' 'Data Analyst ' , 'Machine lea rning Engineer' , 'Data Analyst ' ]  [ ' 8 . 9 ' ,' 7 . 6 ' , ' 4. 25 ' , ' 8 ' , ' 10 ' , ' 12 . 5 ' , 4 5 ' ] |

|  |
| --- |
| studentdata . append (RollNo) studentdata . append (Name) studentdata . append (Gender) studentdata . append (DOB) studentdata . append (Maths) studentdata . append (Physics) studentdata . append (Chemistry) studentdata . append (English) studentdata . append (Total) studentdata . append (Percentage) studentdata . append (Company) studentdata . append (JobR01e) studentdata . append (Package) |

Java devel ope

[ '

102 ' , 'Deloit

te' ,

'Grad uate Softw are

Engin

In [18] : studentdata

[ [ ' 101 ' ,' 102 ' ,' 103 ' ,' 104'

Out[18] : , ' 105 ' , ' 106 ' ,' 107 ' ,' 108 ' ,' 109 ' ,' 110 ' ] ,

[ ' Rahul' ,

' Aditya ' ,

'Omkar' ,

' Abhijeet

' Pooja ' 

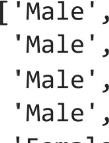
' Shruti

' Nikita ' ,

'Ganesh ' ,

'Mayuri

'Shrikant' ],



Female%

 Female%

 Female%

 Female%

'Male ' ] '

' 08-04-1991 ' ,

'03-09-1990' ,

' 12-11-1989 ' ,

'07-02-1990' ,

08-06-1991 ,

21-07-1992 ,

04-09-1990' ,

' 14-05-1988 ' ,

'07-02-1990' ]

[ ' 56 ' ,' 60 ' ,' 56 ' ,' 78 ' , ' 69 ' ,' 70 ' ,' 75 ' , ' 89' 88 ' ] ,

[ ' 89 ' ,' 75 ' , ' 75 ' ' 74 ' ,' 85 ' ,' 82 ' ,' 81 ' , ' 76 ' ' 73 ' ] ,

[ ' 74 ' 86 ' ,' 72 ' , ' 56 ' , ' 60 ' , ' 74 ' ' 81 ' , ' 77 ' ' 78 ' ]

' , ' 59 ' , , ,

[ ' 74 ' 86 ' ,' 72 ' ,' 56 ' ,' 60 ' , ' ' 74 ' ' 81 ' , ' 77 ' ' 78 ' ]

' , 59 ' , , ,

[ ' 80 ' 79 ' , ' 66 ' , ' 75 ' , ' 59 ' 66 ' ' 83 ' ,' 89 ' ,



' , ' , 

[ ' 299 ' 300' , ' 267 ' ,' 290 ' ,' 273 ' ' 272 ' ' 292 ' ,' 320 ' ,' 331 ' 329 '

' , , , ' , ] ,

[ 'Oracle' , Deloitte' ,

' Accenture '

'Cognizant ' ,

'TCS' ,

'Siemens' ,

' KPMG' ,

' Infosys' ,

' IBM' ,

'Wipro' ]'

[ ' Java developer' ,

'Graduate Software Engineer' ,

' Engineer Trainee'

' Engineer Trainee'

' Software Developer' ,

'Cloud Engineer' ,

Dev ops Engineer' 

'Data Analyst ' ,

'Machine learning Engineer' ,

'Data Analyst' ],

' 7 . 6 ' ,' 4. 25 ' , ' 8 ' , ' 9 . 5 ' , ' 12 . 5 ' 

# Writing Data to New File

|  |  |
| --- | --- |
| In [19] : | " StudentDetai1s . csv" , "w" ) fw=open( |

In [20] :

In [21] :

Out[21] :

'

[

, 74, 80,

74

developer, 8.9,

,

' 102,

Aditya,Ma1e,12

-

03

-

199

7.

e,6e,75,86,86,79,300,De10itte,Graduate Software Engineer,

56

, 75, 72, 72, 64, 267 , Accenture, Engineer Trainee,4.25,

,



10

rows

row

-

list

(

)

j

in

for

col

data

-

studentdata[j] [i] row. append (data) row.

append( '

\

n ' ) data\_to\_write . append( " , " .

join (row) )

data

to write



' 104,Abhijeet,Ma1e, 12-11-1989, 78, 90, 56, 56, 66, 290, Cognizant, Engineer Trainee, 4, ,

' 105, Pooja, Female, 07-02-1990, 64, 74, 60, 60, 75, 273, TCS, Software Developer, 8, ,

Engineer, 5, ,

106

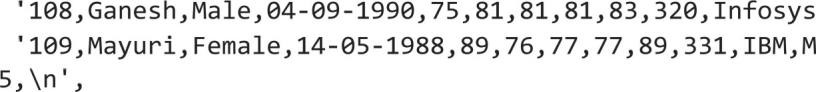
, Shruti,



'107, Nikita, Female, 21-07-1992, 70, 82, 74, 74, 66, 292, KPMG, Dev ops Engineer, 10, ,

320, Infosys,Data

Analyst, 9.5, , learning Engineer, 12.



'110, 73, 78, 78,  Analyst, 4.5, \n ' ]



fw. writelines (data\_to\_write)

fw. close ( )

|  |
| --- |
| # 1 . Sum of Marks # 2. Average Marks print("Math Marks=" , Maths) print("Phyics Marks=" , Physics) print ("Chemistry Marks=" , Chemistry) print ("English  Marks=" , English) math=[int(i) for i in Maths] physics=[int(i) for i in Physics] chemistry=[int(i) for i in  Chemistry] english=[int(i) for i in English] sum\_of\_marks=[]  for i in range(len(math)) :  sum\_of\_marks . append (math [i] +physics [ i] +chemistry [ i] +english [i] ) avg. append ( round ( [i] , 2) ) |

# Statistical Operation

In [26] :

print ("Sum of Marks=" , sum\_of\_marks) print

("Average Marks=" , avg)

Math Marks= [ ' 56 ' , ' 60 ' ,' 56 ' , ' 78 ' , ' 69 ' ,

Phyics Marks= [ ' 89 ' , ' 75 ' , ' 75 ' , ' 90 ' , ' 74 ' , ' 85 ' , ' 82 ' , '81 , '

76 ' ,

Chemistry Marks= [ ' 74' , ' 86 ' , ' 72 ' , ' 56 ' , ' 60 ' , ' 74 ' , ' 81 '

, English Marks= [ ' 74' , ' 86 ' , ' 72 ' , ' 56 ' , ' 60 ' , ' 74 '

|  |  |  |
| --- | --- | --- |
| Sum of Marks= [293, 307, 275, 280, Average Marks= [293, 307, 275, 280, | 258,  258, | 272, 300, 318, 319, 317]  272, 300, 318, 319, 317] |
| # 3. Max Marks print ("Maximum Marks=" ,max(avg)) |  |  |

, ' 81 ' ,

In [27] :

Maximum Marks= 319

|  |
| --- |
| In [28] : # 4. Min Marks # Max Marks print  ("Maximum Marks=" ,min(avg)) |

Maximum Marks= 258

|  |
| --- |
| # 5. Count total no of student print ("Total No of Student=" |

In [29] :

Total No of Student= 10

|  |
| --- |
| #6. Percentage  #assume math  physic=90, chem=90  for i in range(len(sum\_of\_marks)) :  per. append ( round (  [ i ] / 270)  , 2) ) print ( "Percentage=" , per) |

In [30] :

Percentage= [108.52, 113.7, 101.85, 103.7, 95.56, 100.74, 111.11, 117.78, 118.15, 117.4 1]

