579 – Varad Phalak

May 9, 2023

[1]:

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)

[2]:

[['Roll No', 'name', 'Gender', 'DOB'], ['1', 'John', 'Male', '05-04-1988'],

['2', 'Mayur', 'Male', '04-05-1987'], ['3', 'Mangesh', 'Male', '25-05-1989'],

['4', 'Jessica', 'Female', '12-08-1990'], ['5', 'Jennifer', 'Female',

'02-09-1989'], ['6', 'Ramesh', 'Male', '03-09-1989'], ['7', 'Suresh', 'Male',

'04-09-1990'], ['8', 'Ganesh', 'Male', '05-10-1989'], ['9', 'Komal', 'Female',

'06-09-1989'], ['10', 'Mayuri', 'Female', '07-02-1988']]

RollNo=[] Name=[] Gender=[] DOB=[]

[3]:

**for** row **in** info\_dataset[1:]: RollNo.append(row[0]) Name.append(row[1]) Gender.append(row[2]) DOB.append(row[3])

[4]:

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']

[5]:

['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', '07-02-1988']

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)

[6]:

[['Roll', 'Maths', 'Physics', 'Chemistry', 'Total', 'Percentage'], ['1', '55',

'45', '56', '156', '52.00'], ['2', '75', '55', '55', '185', '61.67'], ['3',

'25', '54', '89', '168', '56.00'], ['4', '78', '55', '86', '219', '73.00'],

['5', '58', '96', '78', '232', '77.33'], ['6', '88', '78', '58', '224',

'74.67'], ['7', '56', '89', '69', '214', '71.33'], ['8', '54', '55', '88',

'197', '65.67'], ['9', '46', '66', '65', '177', '59.00'], ['10', '89', '87',

'54', '230', '76.67']]

Maths=[] Physics=[] Chemistry=[] Total=[] Percentage=[]

[7]:

**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])

[8]:

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']

[9]:

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)

[10]:

[['Roll No', 'Company', 'JobRole', 'Package'], ['1', 'Infosys', 'Data Analyst',

'10.2'], ['2', 'TCS', 'Java Developer', '9.6'], ['3', 'TCS', 'Data Scientist',

'12.60'], ['4', 'Infosys', 'Data Analyst', '10.2'], ['5', 'Oracle', 'Java

Developer', '9.6'], ['6', 'Oracle', 'Data Scientist', '12.60'], ['7', 'TCS',

'Tester', '6.50'], ['8', 'Infosys', 'Tester', '6.51'], ['9', 'Mindtree',

'Database Admin', '8.30'], ['10', 'Mindtree', 'Database Admin', '8.31']]

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

[11]:

**for** row **in** placement\_dataset[1:]: Company.append(row[1]) JobRole.append(row[2]) Package.append(row[3])

[12]:

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

[14]:

['Infosys', 'TCS', 'TCS', 'Infosys', 'Oracle', 'Oracle', 'TCS', 'Infosys', 'Mindtree', 'Mindtree']

['Data Analyst', 'Java Developer', 'Data Scientist', 'Data Analyst', 'Java Developer', 'Data Scientist', 'Tester', 'Tester', 'Database Admin', 'Database Admin']

['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) print(studentdata)

[15]:

[16]:

data\_to\_write=[]

**for** i **in** range(len(studentdata[0])): row=list()

**for** j **in** range(len(studentdata)): data=studentdata[j][i] row.append(data)

row.append('**\n**') data\_to\_write.append(",".join(row)) print(data\_to\_write)

[['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',

'07-02-1988'], ['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', 'Data Analyst', 'Java Developer', 'Data Scientist', 'Tester', 'Tester', 'Database Admin', 'Database Admin'], ['10.2', '9.6', '12.60', '10.2', '9.6', '12.60', '6.50', '6.51', '8.30',

'8.31']]

fw=open("StudentDetails.csv","w")

['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n']

['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n']

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

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n',

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n',

[17]:

[18]:

fw.close()

'5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n',

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n', '6,Ramesh,Male,03-09-1989,88,78,58,224,74.67,Oracle,Data Scientist,12.60,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n',

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n', '6,Ramesh,Male,03-09-1989,88,78,58,224,74.67,Oracle,Data Scientist,12.60,\n', '7,Suresh,Male,04-09-1990,56,89,69,214,71.33,TCS,Tester,6.50,\n']

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

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n', '6,Ramesh,Male,03-09-1989,88,78,58,224,74.67,Oracle,Data Scientist,12.60,\n', '7,Suresh,Male,04-09-1990,56,89,69,214,71.33,TCS,Tester,6.50,\n',

'8,Ganesh,Male,05-10-1989,54,55,88,197,65.67,Infosys,Tester,6.51,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n',

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n', '6,Ramesh,Male,03-09-1989,88,78,58,224,74.67,Oracle,Data Scientist,12.60,\n', '7,Suresh,Male,04-09-1990,56,89,69,214,71.33,TCS,Tester,6.50,\n',

'8,Ganesh,Male,05-10-1989,54,55,88,197,65.67,Infosys,Tester,6.51,\n', '9,Komal,Female,06-09-1989,46,66,65,177,59.00,Mindtree,Database Admin,8.30,\n'] ['1,John,Male,05-04-1988,55,45,56,156,52.00,Infosys,Data Analyst,10.2,\n', '2,Mayur,Male,04-05-1987,75,55,55,185,61.67,TCS,Java Developer,9.6,\n', '3,Mangesh,Male,25-05-1989,25,54,89,168,56.00,TCS,Data Scientist,12.60,\n',

'4,Jessica,Female,12-08-1990,78,55,86,219,73.00,Infosys,Data Analyst,10.2,\n', '5,Jennifer,Female,02-09-1989,58,96,78,232,77.33,Oracle,Java Developer,9.6,\n', '6,Ramesh,Male,03-09-1989,88,78,58,224,74.67,Oracle,Data Scientist,12.60,\n', '7,Suresh,Male,04-09-1990,56,89,69,214,71.33,TCS,Tester,6.50,\n',

'8,Ganesh,Male,05-10-1989,54,55,88,197,65.67,Infosys,Tester,6.51,\n', '9,Komal,Female,06-09-1989,46,66,65,177,59.00,Mindtree,Database Admin,8.30,\n', '10,Mayuri,Female,07-02-1988,89,87,54,230,76.67,Mindtree,Database Admin,8.31,\n']

fw.writelines(data\_to\_write)

[19]:

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)

[20]:

[21]:

[22]:

[23]:

per=[]

**for** i **in** range(len(sum\_of\_marks)): per.append(round((100\*sum\_of\_marks[i]/270),2))

print("Percentage=",per)

Math Marks= ['55', '75', '25', '78', '58', '88', '56', '54', '46', '89']

Phyics 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, 185, 168, 219, 232, 224, 214, 197, 177, 230]

Average Marks= [156, 185, 168, 219, 232, 224, 214, 197, 177, 230]

print("Maximum Marks=",max(avg))

Maximum Marks= 232

print("Minimum Marks=",min(avg))

Minimum Marks= 156

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

Total No of Student= 10

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

85.19]