

## 163 – Bhagyashree Thakur

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)
```

```
[['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']]
```

```
[2]: 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']
```

```
['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']
```

```
[5]: 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)
```

```
[['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']]
```

```
[6]: 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)
```

```
[['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']]
```

```
[10]: 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)
```

```
['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']
```

```
[14]: 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)

```

```

[['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']]

```

```
[15]: fw=open("StudentDetails.csv", "w")
```

```
[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, 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',

```

```
' 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' ]
```

```
[17]: fw.writelines(data_to_write)
```

```
[18]: fw.close()
```

```
[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)
```

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]

```
[20]: print("Maximum Marks=", max(avg))
```

Maximum Marks= 232

```
[21]: print("Minimum Marks=", min(avg))
```

Minimum Marks= 156

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

Total No of Student= 10

```
[23]: 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, 68.52, 62.22, 81.11, 85.93, 82.96, 79.26, 72.96, 65.56, 85.19]