Lab Assignment 25

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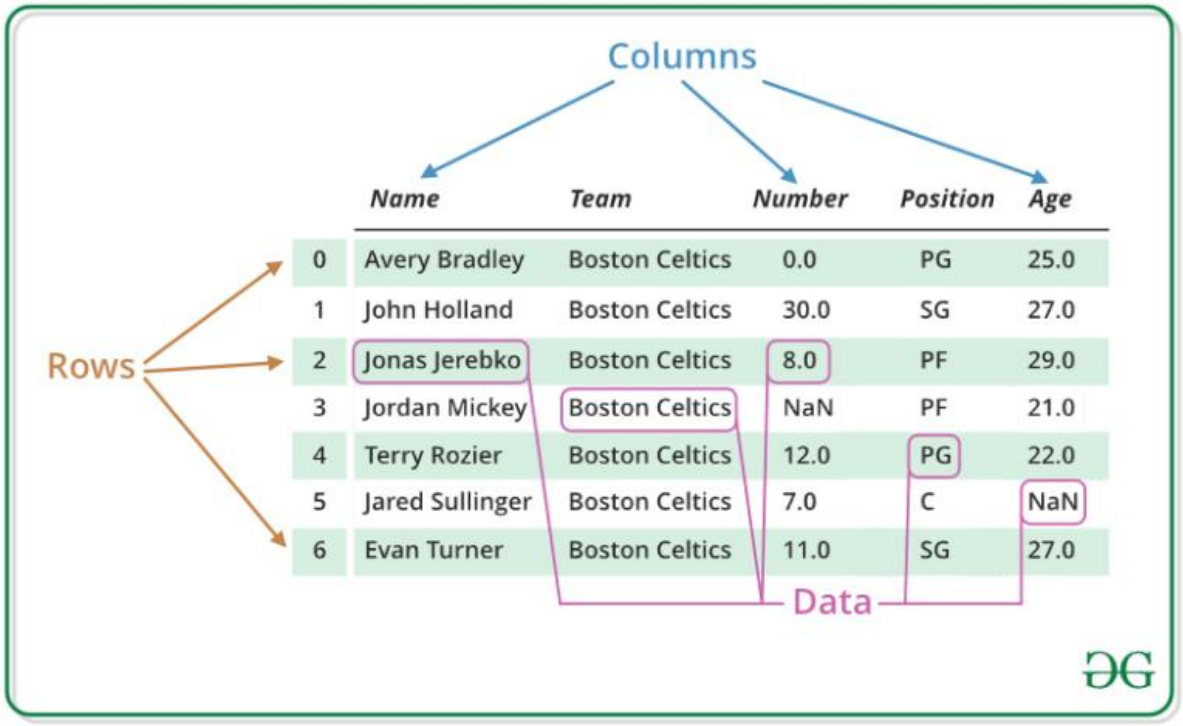
Topic: Panda Dataframe

Python Pandas DataFrame:-

Pandas DataFrame is two-dimensional size-mutable, potentially heterogeneous tabular data structure with labeled axes (rows and columns). A Data frame is a two-dimensional data structure, i.e., data is aligned in a tabular fashion in rows and columns. Pandas DataFrame consists of three principal components, the **data**, **rows**, and **columns**.



Questions:

1. Create sample DataFrame using pandas with example

Code:

lab25.py > ...

```
#create panda dataframe
import pandas as pd
df=pd.DataFrame(
    {
        'Math':[78,92,85,97,85],
        'Hindu':[88,91,85,87,88],
        'English':[96,90,83,97,96],
    });
print(df.to_string(index=False))
```

Output:

```
   Math  Hindu  English
     78     88       96
     92     91       90
     85     85       83
     97     87       97
     85     88       96
```

2. Read 8362_data.csv print complete data and display columns[student name,attendance,mcq,lab]

Code:

```
12  #Q2. Read 8362_data.csv print complete data and display columns[ student name,attendance,mcq,lab]
13  import pandas as pd
14  data= pd.read_csv('8362_data.csv')
15  print(data[['Student Name','Attendance %','FD MCQ %','TD Lab %']].to_string(index=False))
16
```

Output:

```
            Student Name  Attendance %  FD MCQ %  TD Lab %
          Dashmeet Singh            95        87        88
               Mr Ketan             66        17        36
           Harsh panchal            40        17        48
       Rahil Ahmad  khan             79        46        61
            vishal singh            13         0         4
           Kishan Mishra            31        18        18
           Shubham Kumar            60        72        83
              Sonal Garg            66        46        65
         RATAN SRIVASTAV            71        83        82
            Rohit verma             89        85        85
           Yashika Gupta            80        86        84
      Dishant Kumar Moga            75        83        85
             Abhishek .             73        65        66
            Aryan Verma             88        90        88
            Aryan Verma             88        90        88
               Ankush .             94        79        87
            Riya Singla             78        76        80
          Rajneesh Singh            51        19         7
        Khushi Chaudhary            13         0        11
Chauhan Vandana Ramdayal            87        88        85
            Bittu Samui             43        36        14
          Vikranth Singh            12        17        31
         Divyanshi Dyori            20        16        27
            Kunal Bisht             12        16         7
              Navneet P             96        94        87
        Abhinandan Kumar            93        92        80
            Aafrin Alam             56        89        84
```

3. Display data using head() Function,tail() Function and Slicing data[3:20]

Code:

```python
#Q3.Display data using head() Function,tail() Function and Slicing data[3:20]
import pandas as pd
data= pd.read_csv('8362_data.csv')
APP=data[['Student Name','Attendance %','FD MCQ %','TD Lab %']]
print(APP.head(5).to_string(index=False))
print(APP.tail(3).to_string(index=False))
print(APP.loc[3:19].to_string(index=False))
```

Output:

```
      Student Name  Attendance %  FD MCQ %  TD Lab %
    Dashmeet Singh            95        87        88
         Mr Ketan             66        17        36
     Harsh panchal            40        17        48
 Rahil Ahmad  khan            79        46        61
      vishal singh            13         0         4
     Student Name  Attendance %  FD MCQ %  TD Lab %
       Navneet P             96        94        87
 Abhinandan Kumar            93        92        80
      Aafrin Alam            56        89        84
            Student Name  Attendance %  FD MCQ %  TD Lab %
       Rahil Ahmad  khan            79        46        61
            vishal singh            13         0         4
           Kishan Mishra            31        18        18
           Shubham Kumar            60        72        83
              Sonal Garg            66        46        65
         RATAN SRIVASTAV            71        83        82
             Rohit verma            89        85        85
           Yashika Gupta            80        86        84
      Dishant Kumar Moga            75        83        85
              Abhishek .            73        65        66
            Aryan Verma             88        90        88
               Ankush .             94        79        87
            Riya Singla             78        76        80
          Rajneesh Singh            51        19         7
        Khushi Chaudhary            13         0        11
Chauhan Vandana Ramdayal            87        88        85
             Bittu Samui            43        36        14
```

4. Export data set using .to_csv() only selected columns[student name,attendance,mcq,lab]

Code:

```python
#Q4. Export data set using .to_csv() only selected columns[ student name,attendance,mcq,lab]
import pandas as pd
data = pd.read_csv('8362_data.csv')
APP= data[['Student Name','Attendance %','FD MCQ %','TD Lab %']]
print(APP.head(5).to_string(index=False))
print(APP.tail(3).to_string(index=False))
print(APP.loc[3:19].to_string(index=False))
APP.to_csv('Result.csv')
```

Output:

	A	B	C	D	E	F	G
1		Student N	Attendar	FD MCQ %	TD Lab %		
2	0	Dashmee	95	87	88		
3	1	Mr Ketan	66	17	36		
4	2	Harsh pa	40	17	48		
5	3	Rahil Ahı	79	46	61		
6	4	vishal sir	13	0	4		
7	5	Kishan M	31	18	18		
8	6	Shubham	60	72	83		
9	7	Sonal Ga	66	46	65		
10	8	RATAN SI	71	83	82		
11	9	Rohit ver	89	85	85		
12	10	Yashika (	80	86	84		
13	11	Dishant I	75	83	85		
14	12	Abhishek	73	65	66		
15	13	Aryan Ve	88	90	88		
16	14	Ankush .	94	79	87		
17	15	Riya Sing	78	76	80		
18	16	Rajneesh	51	19	7		
19	17	Khushi Cl	13	0	11		
20	18	Chauhan	87	88	85		
21	19	Bittu San	43	36	14		
22	20	Vikranth	12	17	31		
23	21	Divyansh	20	16	27		
24	22	Kunal Bis	12	16	7		
25	23	Navneet	96	94	87		
26	24	Abhinan	93	92	80		
27	25	Aafrin Al	56	89	84		
28							