

Pandas Top Commands

June 4, 2024

1 Pandas Top Commands

Creating New , Renaming & Dropping Columns

Apply Methods sort index , sort value

```
[38]: import pandas as pd
```

```
[39]: df = pd.DataFrame({'Name': ['Harry', 'Piter', 'Mark', 'Buttler', 'Smith', 'Sam'],  
                        'Age': [20, 25, 26, 27, 28, 27] ,  
                        'University': ['BHU', 'DU', 'LPU', 'SPPU', 'BHU', 'LPU']})
```

```
[40]: df
```

```
[40]:
```

	Name	Age	University
0	Harry	20	BHU
1	Piter	25	DU
2	Mark	26	LPU
3	Buttler	27	SPPU
4	Smith	28	BHU
5	Sam	27	LPU

```
[85]: df.to_csv('studets.csv' , index = False) # To save Table as csv File
```

```
[86]: pd.read_csv('studets.csv') # Read save csv file
```

```
[86]:
```

	Name	UNIVESITY	CITY	MARKS
0	Harry	BHU	Varansi	8.80
1	Piter	DU	Delhi	9.60
2	Mark	LPU	Punjab	12.00
3	Buttler	SPPU	Delhi	8.04
4	Smith	BHU	Varanasi	9.00
5	Sam	LPU	Punjab	13.20

```
[43]: # Creating New Column
```

```
df['City'] = ['Varansi', 'Delhi', 'Punjab', 'Delhi', 'Varanasi', 'Punjab']
```

```
[44]: df
```

```
[44]:
```

	Name	Age	University	City
0	Harry	20	BHU	Varansi
1	Piter	25	DU	Delhi
2	Mark	26	LPU	Punjab
3	Buttler	27	SPPU	Delhi
4	Smith	28	BHU	Varanasi
5	Sam	27	LPU	Punjab

```
[45]: # Renaming Column
df.columns = ['Name', 'AGE', 'UNIVESITY', 'CITY']
```

```
[46]: df
```

```
[46]:
```

	Name	AGE	UNIVESITY	CITY
0	Harry	20	BHU	Varansi
1	Piter	25	DU	Delhi
2	Mark	26	LPU	Punjab
3	Buttler	27	SPPU	Delhi
4	Smith	28	BHU	Varanasi
5	Sam	27	LPU	Punjab

```
[47]: # Dropping Columns
df.drop(['AGE'], axis = 1)    # Temporary Dropping syntax
```

```
[47]:
```

	Name	UNIVESITY	CITY
0	Harry	BHU	Varansi
1	Piter	DU	Delhi
2	Mark	LPU	Punjab
3	Buttler	SPPU	Delhi
4	Smith	BHU	Varanasi
5	Sam	LPU	Punjab

```
[49]: df.drop(['AGE'], axis = 1, inplace = True)    # Permanent Dropping Syntax
```

```
[50]: df
```

```
[50]:
```

	Name	UNIVESITY	CITY
0	Harry	BHU	Varansi
1	Piter	DU	Delhi
2	Mark	LPU	Punjab
3	Buttler	SPPU	Delhi
4	Smith	BHU	Varanasi
5	Sam	LPU	Punjab

1.0.1 Apply Method

```
[52]: # Creating a Marks Column
df['Marks'] = [220 , 240 , 300 , 201 , 225,330]
```

```
[53]: df
```

```
[53]:
```

	Name	UNIVESITY	CITY	Marks
0	Harry	BHU	Varansi	220
1	Piter	DU	Delhi	240
2	Mark	LPU	Punjab	300
3	Buttler	SPPU	Delhi	201
4	Smith	BHU	Varanasi	225
5	Sam	LPU	Punjab	330

```
[55]: df.columns = ['Name', 'UNIVESITY', 'CITY' , 'MARKS']
```

```
[56]: df
```

```
[56]:
```

	Name	UNIVESITY	CITY	MARKS
0	Harry	BHU	Varansi	220
1	Piter	DU	Delhi	240
2	Mark	LPU	Punjab	300
3	Buttler	SPPU	Delhi	201
4	Smith	BHU	Varanasi	225
5	Sam	LPU	Punjab	330

```
[60]: # Apply Method
df['MARKS'] = df['MARKS'].apply(lambda x : x/5)    # Finding Average of Marks
```

```
[61]: df
```

```
[61]:
```

	Name	UNIVESITY	CITY	MARKS
0	Harry	BHU	Varansi	8.80
1	Piter	DU	Delhi	9.60
2	Mark	LPU	Punjab	12.00
3	Buttler	SPPU	Delhi	8.04
4	Smith	BHU	Varanasi	9.00
5	Sam	LPU	Punjab	13.20

```
[74]: # Sort index
df.index = [10,9,8,15,20,22]    # Assining Index
```

```
[75]: df
```

```
[75]:
```

	Name	UNIVESITY	CITY	MARKS
10	Harry	BHU	Varansi	8.80

9	Piter	DU	Delhi	9.60
8	Mark	LPU	Punjab	12.00
15	Buttler	SPPU	Delhi	8.04
20	Smith	BHU	Varanasi	9.00
22	Sam	LPU	Punjab	13.20

```
[76]: df.sort_index()      # Default statement : Ascending = True
```

```
[76]:
```

	Name	UNIVESITY	CITY	MARKS
8	Mark	LPU	Punjab	12.00
9	Piter	DU	Delhi	9.60
10	Harry	BHU	Varansi	8.80
15	Buttler	SPPU	Delhi	8.04
20	Smith	BHU	Varanasi	9.00
22	Sam	LPU	Punjab	13.20

```
[81]: df.sort_index( ascending = False)      # Descending order
```

```
[81]:
```

	Name	UNIVESITY	CITY	MARKS
22	Sam	LPU	Punjab	13.20
20	Smith	BHU	Varanasi	9.00
15	Buttler	SPPU	Delhi	8.04
10	Harry	BHU	Varansi	8.80
9	Piter	DU	Delhi	9.60
8	Mark	LPU	Punjab	12.00

```
[82]: # Sort value
df.sort_values(by = 'MARKS')      # Default Statement : Ascending = True
```

```
[82]:
```

	Name	UNIVESITY	CITY	MARKS
15	Buttler	SPPU	Delhi	8.04
10	Harry	BHU	Varansi	8.80
20	Smith	BHU	Varanasi	9.00
9	Piter	DU	Delhi	9.60
8	Mark	LPU	Punjab	12.00
22	Sam	LPU	Punjab	13.20

```
[84]: df.sort_values(by = 'MARKS' , ascending = False)      # For Descending order :␣
      ↪Ascending = False
```

```
[84]:
```

	Name	UNIVESITY	CITY	MARKS
22	Sam	LPU	Punjab	13.20
8	Mark	LPU	Punjab	12.00
9	Piter	DU	Delhi	9.60
20	Smith	BHU	Varanasi	9.00
10	Harry	BHU	Varansi	8.80
15	Buttler	SPPU	Delhi	8.04

[]: