pandas_02

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1 Subject: Import and Explore data-frames in python using pandas library

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1.1 Step-1: Import library

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

1.2 Step-2: Import dataset

[ ]:
```
df = pd.read_excel('pandas_01_day6.xlsx')
```

1.3 Step-3: View dataframe in python using pandas

[ ]:
```
df.head()
```

[ ]:

	Height	Weight	Favourite Dish
0	5.8	101	Chicken Pulao
1	6.2	92	Biryani
2	5.9	62	Karahi Ghosht
3	5.9	95	Chicken Pulao
4	5.9	55	Chicken Pulao

[ ]:
```
df.tail()
```

[ ]:

	Height	Weight	Favourite Dish
82	5.4	55	Pasta
83	5.9	75	Karahi Ghosht
84	5.4	61	Biryani
85	6.2	68	Chicken Pulao
86	5.1	96	Biryani

[ ]:
```
df.shape
```

[ ]: (87, 3)

[ ]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 87 entries, 0 to 86
Data columns (total 3 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   Height          87 non-null     float64
 1   Weight          87 non-null     int64
 2   Favourite Dish  87 non-null     object
dtypes: float64(1), int64(1), object(1)
memory usage: 2.2+ KB
```

[ ]:
```
df.columns
```

[ ]: Index(['Height', 'Weight', 'Favourite Dish'], dtype='object')

[ ]:
```
df.T
```

[ ]:

	0	1	2	3	\
Height	5.8	6.2	5.9	5.9	
Weight	101	92	62	95	
Favourite Dish	Chicken Pulao	Biryani	Karahi Ghosht	Chicken Pulao	

	4	5	6	7	8	9	…	\
Height	5.9	5.3	5.6	5.9	5.1	5.4	…	
Weight	55	59	50	76	78	68	…	
Favourite Dish	Chicken Pulao	Biryani	Pasta	Biryani	Biryani	Biryani	…	

	77	78	79	80	81	82	\
Height	5.5	5.11	5.3	5.4	5.5	5.4	
Weight	85	72	62	55	52	55	
Favourite Dish	Biryani	Karahi Ghosht	Biryani	Pasta	Karahi Ghosht	Pasta	

	83	84	85	86
Height	5.9	5.4	6.2	5.1
Weight	75	61	68	96
Favourite Dish	Karahi Ghosht	Biryani	Chicken Pulao	Biryani

[3 rows x 87 columns]

[ ]:
```
df. index
```

[ ]: RangeIndex(start=0, stop=87, step=1)

[ ]:
```
df.sort_index()
```

[ ]:
```
    Height  Weight Favourite Dish
0      5.8     101  Chicken Pulao
1      6.2      92        Biryani
2      5.9      62  Karahi Ghosht
3      5.9      95  Chicken Pulao
4      5.9      55  Chicken Pulao
..     …     …             …
82     5.4      55          Pasta
83     5.9      75  Karahi Ghosht
84     5.4      61        Biryani
85     6.2      68  Chicken Pulao
86     5.1      96        Biryani

[87 rows x 3 columns]
```

1.4 Step-4: Type Casting of dataframe

[ ]:
```
df['Height'] = df['Height'].astype('float64')
df['Weight'] = df['Weight'].astype('int64')
```

[ ]:
```
df.describe()
```

[ ]:
```
          Height      Weight
count  87.000000   87.000000
mean    5.545632   70.459770
std     0.332250   16.753899
min     5.000000   25.000000
25%     5.250000   60.000000
50%     5.600000   70.000000
75%     5.800000   80.000000
max     6.200000  125.000000
```

[ ]:
```
df.sort_index(ascending=False)
```

[ ]:
```
    Height  Weight Favourite Dish
86     5.1      96        Biryani
85     6.2      68  Chicken Pulao
84     5.4      61        Biryani
83     5.9      75  Karahi Ghosht
82     5.4      55          Pasta
..     …     …             …
4      5.9      55  Chicken Pulao
3      5.9      95  Chicken Pulao
2      5.9      62  Karahi Ghosht
1      6.2      92        Biryani
0      5.8     101  Chicken Pulao
```

```
[87 rows x 3 columns]
```

[ ]:
```
df.sort_values(by='Weight', ascending=False)
```

[ ]:
```
    Height  Weight Favourite Dish
75     6.0     125    Chapel Kaba
34     6.0     110    Chapel Kaba
33     5.1     103    Chapel Kaba
0      5.8     101  Chicken Pulao
86     5.1      96        Biryani
..     …      …            …
40     5.0      50  Chicken Pulao
42     5.6      49  Chicken Pulao
44     5.2      48        Biryani
35     5.0      31        Biryani
26     5.0      25        Biryani

[87 rows x 3 columns]
```

[ ]:
```

```