

```
## list of dictionaries
```

```
import pandas as pd
data=[{'a':1,'b':2},{ 'a':5,'b':10,'c':20}]
df=pd.DataFrame(data)
print(df)
```

	a	b	c
0	1	2	NaN
1	5	10	20.0

```
import pandas as pd
data={'name':['Huzu','Sugu','Shami','sush'],'Age':[28,30,29,42]}
df=pd.DataFrame(data,index=['rank1','rank2','rank3','rank4'])
print(df)
```

	name	Age
rank1	Huzu	28
rank2	Sugu	30
rank3	Shami	29
rank4	sush	42

```
#create Row indices
import pandas as pd
data=[{'a':1,'b':2},{ 'a':5,'b':10,'c':20}]
df=pd.DataFrame(data,index=['first','second'])
print(df)
```

	a	b	c
first	1	2	NaN
second	5	10	20.0

```
import pandas as pd
data=[{'a':1,'b':2},{ 'a':5,'b':10,'c':20}]
#With two column indices ,values same as dictionary keys
df1=pd.DataFrame(data,index=['first','second'],columns=['a','b'])
#with two column indices with one index with other name
df2=pd.DataFrame(data,index=['first','second'],columns=['a','b1'])
print(df1)
print(df2)
```

	a	b
first	1	2
second	5	10

	a	b1
first	1	NaN
second	5	NaN

```
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
print(df)
```

	one	two
a	1.0	1
b	2.0	2
c	3.0	3
d	NaN	4

```
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
print(df['one'])
```

a	1.0
b	2.0
c	3.0
d	NaN

Name: one, dtype: float64

```
#Column Addition
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
#Adding a new column to an existing DataFrame object with column label by passing new Series
print("Adding a new column by passing as Series:")
df['three']=pd.Series([10,20,30],index=['a','b','c'])
print(df)
print("Adding a new column using the existing columns in DataFrame:")
df['four']=df['one']+df['three']
print(df)
```

Adding a new column by passing as Series:

	one	two	three
a	1.0	1	10.0
b	2.0	2	20.0
c	3.0	3	30.0
d	NaN	4	NaN

Adding a new column using the existing columns in DataFrame:

	one	two	three	four
a	1.0	1	10.0	11.0
b	2.0	2	20.0	22.0
c	3.0	3	30.0	33.0
d	NaN	4	NaN	NaN

```
#Using del function will delete column
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d']),
  'three':pd.Series([10,20,30],index=['a','b','c'])}
df=pd.DataFrame(d)
print("Our dataframe is:")
print(df)
```

Our dataframe is:

	one	two	three
a	1.0	1	10.0
b	2.0	2	20.0
c	3.0	3	30.0
d	NaN	4	NaN

Using del function

```
#Using del function
print("Deleting the first column using DEL function:")
del (df['one'])
print(df)
```

Deleting the first column using DEL function:

	two	three
a	1	10.0
b	2	20.0
c	3	30.0
d	4	NaN

```
#Using pop function
print("Deleting the another column using POP function:")
df.pop('two')
print(df)
```

Deleting the first column using POP function:

	three
a	10.0
b	20.0
c	30.0
d	NaN

```
#Row can be selected by passing row label to a loc function
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
print(df.loc['b'])
```

```

one    2.0
two    2.0
Name: b, dtype: float64

```

```

import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
print(df.iloc[2])

```

```

one    3.0
two    3.0
Name: c, dtype: float64

```

```

#Slice rows Multiple rows can be selected using ':' operator
import pandas as pd
d={'one':pd.Series([1,2,3],index=['a','b','c']),
  'two':pd.Series([1,2,3,4],index=['a','b','c','d'])}
df=pd.DataFrame(d)
print(df[2:4])

```

```

      one  two
c  3.0    3
d  NaN    4

```

```

#Addition of rows Add new rows to a dataframe using append function.This function will append the rows at the end
import pandas as pd
df=pd.DataFrame([[1,2],[3,4]],columns=['a','b'])
df2=pd.DataFrame([[5,6],[7,8]],columns=['a','b'])
df=df.append(df2)
print(df)

```

```

      a  b
0  1  2
1  3  4
0  5  6
1  7  8

```

```

<ipython-input-29-7b13da568f5d>:5: FutureWarning: The frame.append method is deprecated and will be removed from pandas in a future vers
df=df.append(df2)

```

```

#Deletion of rows
import pandas as pd
df=pd.DataFrame([[1,2],[3,4]],columns=['a','b'])
df2=pd.DataFrame([[5,6],[7,8]],columns=['a','b'])
df=df.append(df2)
#drop rows with label 0
df=df.drop(0)
print(df)

```

```

      a  b
1  3  4
1  7  8

```

```

<ipython-input-30-7577a7628922>:5: FutureWarning: The frame.append method is deprecated and will be removed from pandas in a future vers
df=df.append(df2)

```

```
df.describe()
```

```

<class 'pandas.core.frame.DataFrame'>
Int64Index: 2 entries, 1 to 1
Data columns (total 2 columns):
#   Column  Non-Null Count  Dtype
---  -
0    a      2 non-null    int64
1    b      2 non-null    int64
dtypes: int64(2)
memory usage: 48.0 bytes

```

```

# 2.Loading the data
import pandas as pd
data=pd.read_csv("/content/fruit dataset_SET A.csv")
df.head()

```

	a	b
1	3	4
1	7	8

```
df.tail()
```

	a	b
1	3	4
1	7	8

```
df.shape
```

(2, 2)

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 2 entries, 1 to 1
Data columns (total 2 columns):
#   Column  Non-Null Count  Dtype
---  ---
0    a         2 non-null      int64
1    b         2 non-null      int64
dtypes: int64(2)
memory usage: 48.0 bytes
```

```
df.describe()
```

	a	b
count	2.000000	2.000000
mean	5.000000	6.000000
std	2.828427	2.828427
min	3.000000	4.000000
25%	4.000000	5.000000
50%	5.000000	6.000000
75%	6.000000	7.000000
max	7.000000	8.000000

```
df.ndim
```

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