

```
In [1]: #checkpoint7
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
print(df)
```

	name	score	attempts	qualify
a	Anastasia	12.5	1	yes
b	Dima	9.0	3	no
c	Katherine	16.5	2	yes
d	James	NaN	3	no
e	Emily	9.0	2	no
f	Michael	20.0	3	yes
g	Matthew	14.5	1	yes
h	Laura	NaN	1	no
i	Kevin	8.0	2	no
j	Jonas	19.0	1	yes

```
In [2]: #1
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary
df = pd.DataFrame(dictionary, index=labels)
print(df.head(3) )
```

	name	score	attempts	qualify
a	Anastasia	12.5	1	yes
b	Dima	9.0	3	no
c	Katherine	16.5	2	yes

```
In [3]: #2
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
df.drop(['d','h'])

#delete something from the rows axis=0,delete something from the columns axis=1
```

```
Out[3]:
```

	name	score	attempts	qualify
a	Anastasia	12.5	1	yes
b	Dima	9.0	3	no
c	Katherine	16.5	2	yes
e	Emily	9.0	2	no
f	Michael	20.0	3	yes
g	Matthew	14.5	1	yes
i	Kevin	8.0	2	no
j	Jonas	19.0	1	yes

```
In [4]: #3
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
df.iloc[:,0: 1]
df.iloc[:,0: 2]

#delete something from the rows axis=0,delete something from the columns axis=1
```

```
Out[4]:
```

	name	score
a	Anastasia	12.5
b	Dima	9.0
c	Katherine	16.5
d	James	NaN
e	Emily	9.0
f	Michael	20.0
g	Matthew	14.5
h	Laura	NaN
i	Kevin	8.0
j	Jonas	19.0

```
In [5]: #4
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
labels2 = ['k']
dictionary2 = { 'name' : ["Suresh"],
                'score' : [15.5], 'attempts':[1], 'qualify': ["yes"]}
df2 = pd.DataFrame(dictionary2, index=labels2)
new=pd.concat([df,df2])
print(new)
```

	name	score	attempts	qualify
a	Anastasia	12.5	1	yes
b	Dima	9.0	3	no
c	Katherine	16.5	2	yes
d	James	NaN	3	no
e	Emily	9.0	2	no
f	Michael	20.0	3	yes
g	Matthew	14.5	1	yes
h	Laura	NaN	1	no
i	Kevin	8.0	2	no
j	Jonas	19.0	1	yes
k	Suresh	15.5	1	yes

```
In [6]: #5
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
labels2 = ['k']
dictionary2 = { 'name' : ["Suresh"],
                'score' : [15.5], 'attempts':[1], 'qualify': ["yes"]}
df2 = pd.DataFrame(dictionary2, index=labels2)
df.drop("attempts", axis=1)
```

```
Out[6]:
```

	name	score	qualify
a	Anastasia	12.5	yes
b	Dima	9.0	no
c	Katherine	16.5	yes
d	James	NaN	no
e	Emily	9.0	no
f	Michael	20.0	yes
g	Matthew	14.5	yes
h	Laura	NaN	no
i	Kevin	8.0	no
j	Jonas	19.0	yes

```
In [7]: #6et7
import pandas as pd
import numpy as np
labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
dictionary = { 'name' : ['Anastasia', 'Dima', 'Katherine', 'James', 'Emily', 'Michael', 'Matthew', 'Laura', 'Kevin', 'Jonas'],
               'score' : [12.5, 9, 16.5, np.nan, 9, 20, 14.5, np.nan, 8, 19],
               'attempts' : [1, 3, 2, 3, 2, 3, 1, 1, 2, 1],
               'qualify' : ['yes', 'no', 'yes', 'no', 'no', 'yes', 'yes', 'no', 'no', 'yes']           } #fill a dictionary

df = pd.DataFrame(dictionary, index=labels)
df.insert(4, "success", [1, 0,1,0,0,1,1,0,0,1], True)
df.to_csv('my_data.csv')
```