Pandas

In [8]:

```python
# Pre-defined lists
names = ['United States', 'Australia', 'Japan', 'India', 'Russia', 'Morocco', 'Egypt']
dr =   [True, False, False, False, True, True, True]
cpc = [809, 731, 588, 18, 200, 70, 45]

# Import pandas as pd
import pandas as pd

# Create dictionary my_dict with three key:value pairs: my_dict
my_dict = { 'country':names,'drives_right':dr,'cars_per_cap':cpc}

# Build a DataFrame cars from my_dict: cars
cars = pd.DataFrame(my_dict)

# Print cars
print(cars)
```

```
         country  drives_right  cars_per_cap
0  United States          True           809
1      Australia         False           731
2          Japan         False           588
3          India         False            18
4         Russia          True           200
5        Morocco          True            70
6          Egypt          True            45
```

In [9]:

```python
# Definition of row_labels
row_labels = ['US', 'AUS', 'JAP', 'IN', 'RU', 'MOR', 'EG']

# Specify row labels of cars
cars.index =  row_labels

# Print cars again
print(cars)
```

```
           country  drives_right  cars_per_cap
US   United States          True           809
AUS      Australia         False           731
JAP          Japan         False           588
IN           India         False            18
RU          Russia          True           200
MOR        Morocco          True            70
EG           Egypt          True            45
```

In [10]:

```python
# Import pandas as pd
import pandas as pd

# Import the cars.csv data: cars
cars = pd.read_csv("cars.csv")

# Print out cars
print(cars)
```

```
  Unnamed: 0  cars_per_cap        country  drives_right
0         US           809  United States          True
1        AUS           731      Australia         False
2        JAP           588          Japan         False
3         IN            18          India         False
4         RU           200         Russia          True
5        MOR            70        Morocco          True
6         EG            45          Egypt          True
```

In [11]:

```python
# Import pandas as pd
import pandas as pd

# Fix import by including index_col
cars = pd.read_csv('cars.csv',index_col = 0)

# Print out cars
print(cars)
```

```
     cars_per_cap        country  drives_right
US            809  United States          True
AUS           731      Australia         False
JAP           588          Japan         False
IN             18          India         False
RU            200         Russia          True
MOR            70        Morocco          True
EG             45          Egypt          True
```

In [12]:

```python
# Print out first 3 observations
print(cars[0:4])

# Print out fourth, fifth and sixth observation
print(cars[3:6])
```

```
     cars_per_cap        country  drives_right
US            809  United States          True
AUS           731      Australia         False
JAP           588          Japan         False
IN             18          India         False
     cars_per_cap  country  drives_right
IN             18    India         False
RU            200   Russia          True
MOR            70  Morocco          True
```

In [13]:

```python
# Print out observation for Japan
print(cars.loc['JAP'])
print(cars.iloc[2])

# Print out observations for Australia and Egypt
print(cars.loc[['AUS','EG']])
print(cars.iloc[[1,6]])
```

```
cars_per_cap         588
country            Japan
drives_right       False
Name: JAP, dtype: object
cars_per_cap         588
country            Japan
drives_right       False
Name: JAP, dtype: object
     cars_per_cap    country    drives_right
AUS           731  Australia           False
EG             45      Egypt            True
     cars_per_cap    country    drives_right
AUS           731  Australia           False
EG             45      Egypt            True
```

In [14]:

```python
# Print out drives_right column as Series
print(cars.loc[:,'drives_right'])

# Print out drives_right column as DataFrame
print(cars.loc[:,['drives_right']])
```

```
US      True
AUS    False
JAP    False
IN     False
RU      True
MOR     True
EG      True
Name: drives_right, dtype: bool
     drives_right
US           True
AUS         False
JAP         False
IN          False
RU           True
MOR          True
EG           True
```

In [ ]: