```
import pandas as pd
```

```
data_url = 'http://bit.ly/2cLzoxH'
# read data from url as pandas dataframe
df = pd.read_csv(data_url)
# print the first three rows
df.head(3)
```

	country	year	pop	continent	lifeExp	gdpPercap
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
1	Afghanistan	1957	9240934.0	Asia	30.332	820.853030
2	Afghanistan	1962	10267083.0	Asia	31.997	853.100710

Sort Pandas Dataframe based on the values of a column

```
sort_by_life = df.sort_values('lifeExp')
df
```

	country	year	pop	continent	lifeExp	gdpPercap
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
1	Afghanistan	1957	9240934.0	Asia	30.332	820.853030
2	Afghanistan	1962	10267083.0	Asia	31.997	853.100710
3	Afghanistan	1967	11537966.0	Asia	34.020	836.197138
4	Afghanistan	1972	13079460.0	Asia	36.088	739.981106
...	...	...	...	...	...	...

```
df.sort_values('lifeExp',inplace=True)
df
```

	country	year	pop	continent	lifeExp	gdpPercap
1292	Rwanda	1992	7290203.0	Africa	23.599	737.068595
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
552	Gambia	1952	284320.0	Africa	30.000	485.230659
36	Angola	1952	4232095.0	Africa	30.015	3520.610273
1344	Sierra Leone	1952	2143249.0	Africa	30.331	879.787736
...	...	...	...	...	...	...
1487	Switzerland	2007	7554661.0	Europe	81.701	37506.419070
695	Iceland	2007	301931.0	Europe	81.757	36180.789190
802	Japan	2002	127065841.0	Asia	82.000	28604.591900
671	Hong Kong China	2007	6980412.0	Asia	82.208	39724.978670
803	Japan	2007	127467972.0	Asia	82.603	31656.068060

1704 rows × 6 columns

```
#df.reset_index(drop=True)
```

#df.reset_index(drop=True)

Sort Pandas Dataframe based on the values of a column (Descending order)

```
sort_by_life = df.sort_values('lifeExp',ascending=False)
df
```

	country	year	pop	continent	lifeExp	gdpPercap
803	Japan	2007	127467972.0	Asia	82.603	31656.068060
671	Hong Kong China	2007	6980412.0	Asia	82.208	39724.978670
802	Japan	2002	127065841.0	Asia	82.000	28604.591900
695	Iceland	2007	301931.0	Europe	81.757	36180.789190
1487	Switzerland	2007	7554661.0	Europe	81.701	37506.419070
...	...	...	...	...	...	...
1344	Sierra Leone	1952	2143249.0	Africa	30.331	879.787736
36	Angola	1952	4232095.0	Africa	30.015	3520.610273
552	Gambia	1952	284320.0	Africa	30.000	485.230659
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
1292	Rwanda	1992	7290203.0	Africa	23.599	737.068595

1704 rows × 6 columns

Sort Pandas Dataframe based on a column and put missing values first?

```
df=df.sort_values('lifeExp',na_position='first')
```

```
df
```

	country	year	pop	continent	lifeExp	gdpPercap
1292	Rwanda	1992	7290203.0	Africa	23.599	737.068595
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
552	Gambia	1952	284320.0	Africa	30.000	485.230659
36	Angola	1952	4232095.0	Africa	30.015	3520.610273
1344	Sierra Leone	1952	2143249.0	Africa	30.331	879.787736
...	...	...	...	...	...	...
1487	Switzerland	2007	7554661.0	Europe	81.701	37506.419070
695	Iceland	2007	301931.0	Europe	81.757	36180.789190
802	Japan	2002	127065841.0	Asia	82.000	28604.591900
671	Hong Kong China	2007	6980412.0	Asia	82.208	39724.978670
803	Japan	2007	127467972.0	Asia	82.603	31656.068060

1704 rows × 6 columns

Sort Pandas Dataframe based on Index (in place)

```
df.sort_index(inplace=True)
```

```
df
```

	country	year	pop	continent	lifeExp	gdpPercap
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
1	Afghanistan	1957	9240934.0	Asia	30.332	820.853030
2	Afghanistan	1962	10267083.0	Asia	31.997	853.100710
3	Afghanistan	1967	11537966.0	Asia	34.020	836.197138
4	Afghanistan	1972	13079460.0	Asia	36.088	739.981106
...	...	...	...	...	...	...
1699	Zimbabwe	1987	9216418.0	Africa	62.351	706.157306
1700	Zimbabwe	1992	10704340.0	Africa	60.377	693.420786
1701	Zimbabwe	1997	11404948.0	Africa	46.809	792.449960
1702	Zimbabwe	2002	11926563.0	Africa	39.989	672.038623

Sort Pandas Dataframe Based on the Values of Multiple Columns

```
df
```

	country	year	pop	continent	lifeExp	gdpPercap
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
1	Afghanistan	1957	9240934.0	Asia	30.332	820.853030
2	Afghanistan	1962	10267083.0	Asia	31.997	853.100710
3	Afghanistan	1967	11537966.0	Asia	34.020	836.197138

```
df=sort_by_life_gdp = df.sort_values(['lifeExp','gdpPercap'])
```

1699	Zimbabwe	1987	9216418.0	Africa	62.351	706.157306

```
df
```

	country	year	pop	continent	lifeExp	gdpPercap
1292	Rwanda	1992	7290203.0	Africa	23.599	737.068595
0	Afghanistan	1952	8425333.0	Asia	28.801	779.445314
552	Gambia	1952	284320.0	Africa	30.000	485.230659
36	Angola	1952	4232095.0	Africa	30.015	3520.610273
1344	Sierra Leone	1952	2143249.0	Africa	30.331	879.787736
...	...	...	...	...	...	...
1487	Switzerland	2007	7554661.0	Europe	81.701	37506.419070
695	Iceland	2007	301931.0	Europe	81.757	36180.789190
802	Japan	2002	127065841.0	Asia	82.000	28604.591900
671	Hong Kong China	2007	6980412.0	Asia	82.208	39724.978670
803	Japan	2007	127467972.0	Asia	82.603	31656.068060

1704 rows × 6 columns

```
df.sort_index(inplace=True)
```

```
df.dtypes
```

```
country       object
year           int64
pop          float64
continent     object
lifeExp      float64
gdpPercap    float64
dtype: object
```

```
sort_by_life_gdp = df.sort_values(['gdpPercap','lifeExp'])
```

```
sort_by_life_gdp
```

	country	year	pop	continent	lifeExp	gdpPercap
335	Congo Dem. Rep.	2007	64606759.0	Africa	46.462	277.551859
876	Lesotho	1952	748747.0	Africa	42.138	298.846212
624	Guinea-Bissau	1952	580653.0	Africa	32.500	299.850319
333	Congo Dem. Rep.	1997	47798986.0	Africa	42.587	312.188423
...	...	...	...	...	...	...
855	Kuwait	1967	575003.0	Asia	64.624	80894.883260
854	Kuwait	1962	358266.0	Asia	60.470	95458.111760
852	Kuwait	1952	160000.0	Asia	55.565	108382.352900
856	Kuwait	1972	841934.0	Asia	67.712	109347.867000
853	Kuwait	1957	212846.0	Asia	58.033	113523.132900

1704 rows × 6 columns