

SORTING

A. Sorting a List :

Steps :

- i. Create a list

```
[12]  1  my_list = [10, 5, 7, 2, 4, 1, 3, 9]
      2  my_list
```

```
☞ [10, 5, 7, 2, 4, 1, 3, 9]
```

- ii. For sorting in ascending order, use sort

```
[13]  1  my_list.sort()
      2  my_list
```

```
☞ [1, 2, 3, 4, 5, 7, 9, 10]
```

function :

- iii. For sorting in descending order, use the same function and set the parameter 'reverse' as True. (default value of 'reverse' is False, thus even though we did not specify a value for the parameter in the previous step, it returned the list sorted in ascending

```
[14]  1  my_list.sort(reverse=True)
      2  my_list
```

```
☞ [10, 9, 7, 5, 4, 3, 2, 1]
```

order) :

B. Sorting a Dataframe :

Steps :

- i. Create a dataframe :

```
[22]  1  my_df
```

```
☞      column1  column2
```

0	x	5
1	y	3
2	z	2
3	x	1
4	y	4

- ii. To sort a dataframe based on a column in ascending order :

```
[27] 1 my_df = my_df.sort_values(['column1']).reset_index(drop=True)
      2 my_df
```

```
↳
```

	column1	column2
0	x	5
1	x	1
2	y	3
3	y	4
4	z	2

- iii. To sort a dataframe based on multiple columns in ascending order :


```
[29] 1 my_df.sort_values(['column1', 'column2'], inplace= True)
      2 my_df.reset_index(inplace=True, drop=True)
      3 my_df
```

```
↳
```

	column1	column2
0	x	1
1	x	5
2	y	3
3	y	4
4	z	2

- iv. To sort a dataframe based on a column in descending order, set the value of parameter 'ascending' as False (default value is True)


```
[35] 1 my_df.sort_values(['column1'], ascending=False, inplace=True)
      2 my_df.reset_index(inplace=True, drop=True)
      3 my_df
```



	column1	column2
0	z	2
1	y	3
2	y	4
3	x	1
4	x	5

- v. To sort a dataframe based on multiple columns in descending order :

```
[36] 1 my_df.sort_values(['column1', 'column2'], ascending=False, inplace=True)
      2 my_df.reset_index(inplace=True, drop=True)
      3 my_df
```



	column1	column2
0	z	2
1	y	4
2	y	3
3	x	5
4	x	1

EXTRA RESOURCES :

1. <https://cmdlinetips.com/2018/02/how-to-sort-pandas-dataframe-by-columns-and-row/>
2. https://www.w3schools.com/python/ref_list_sort.asp