

# PYTHON PANDAS

## PROGRAMS

*#to check the version of pandas*

```
import pandas as pd
print(pd.__version__)
print(pd.show_versions(as_json=True))
```

*#to create a series from a list,dict,numpy array*

```
import numpy as np
import pandas as pd
my_list = list('abcdefghijklmnopqrstuvwxy')
my_arr = np.arange(26)
my_dict = dict(zip(my_list, my_arr))
ser1 = pd.Series(my_list)
ser2 = pd.Series(my_arr)
ser3 = pd.Series(my_dict)
print(ser3.head(8))
```

#to convert the index of a series into a dataframe column

```
import numpy as np
import pandas as pd
my_list = list('abcdefghijklmnopqrstuvwxy')
my_arr = np.arange(26)
my_dict = dict(zip(my_list, my_arr))
ser = pd.Series(my_dict)
df = ser.to_frame().reset_index()
print(df.head(5))
```

#to combine series to form a dataframe

```
import numpy as np
import pandas as pd
series1 = pd.Series(list('abcdefghijklmnopqrstuvwxy'))
series2 = pd.Series(np.arange(26))
df = pd.concat([series1, series2], axis=1) # Solution 1
df = pd.DataFrame({'column1': series1, 'column2':
series2})# Solution 2
print(df.head())
```

#to get the items of a series not present in another series

```
import numpy as np
import pandas as pd
series1 = pd.Series([11, 12, 13, 14, 15])
series2 = pd.Series([14, 15, 16, 17, 18])
series=series1[~series1.isin(series2)]
print(series)
```

to find the positions of numbers that are multiples of 4 from a series

```
import numpy as np
import pandas as pd
series = pd.Series([2,4,7,2,6,9,5,8])
r=np.argwhere(series % 4==0)
print(r)
```

```
#to extract items of specific positions from a series
import numpy as np
import pandas as pd
series = pd.Series(list('abcdefghijklmnopqrstuvwxyz'))
position = [5, 4, 1, 14, 20,0]
newseries=series.take(position)
print(newseries)
```

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