pandas_concat (6)

January 12, 2020

#

Pandas Concatenate Tutorial

0.1 Basic Concatenation

[1]:
```
import pandas as pd

india_weather = pd.DataFrame({
    "city": ["mumbai","delhi","banglore"],
    "temperature": [32,45,30],
    "humidity": [80, 60, 78]
})
india_weather
```

[1]:

	city	temperature	humidity
0	mumbai	32	80
1	delhi	45	60
2	banglore	30	78

[2]:
```
us_weather = pd.DataFrame({
    "city": ["new york","chicago","orlando"],
    "temperature": [21,14,35],
    "humidity": [68, 65, 75]
})
us_weather
```

[2]:

	city	temperature	humidity
0	new york	21	68
1	chicago	14	65
2	orlando	35	75

[3]:
```
df = pd.concat([india_weather, us_weather])
df
```

[3]:

	city	temperature	humidity
0	mumbai	32	80
1	delhi	45	60

```
2  banglore           30         78
0  new york           21         68
1   chicago           14         65
2   orlando           35         75
```

0.2 Ignore Index

[4]:
```
df = pd.concat([india_weather, us_weather], ignore_index=True)
df
```

[4]:
```
        city  temperature  humidity
0     mumbai           32         80
1      delhi           45         60
2  banglore            30         78
3  new york            21         68
4   chicago            14         65
5   orlando            35         75
```

0.3 Concatenation And Keys

[5]:
```
df = pd.concat([india_weather, us_weather], keys=["india", "us"])
df
```

[5]:
```
              city  temperature  humidity
india 0     mumbai           32         80
      1      delhi           45         60
      2   banglore           30         78
us    0   new york           21         68
      1    chicago           14         65
      2    orlando           35         75
```

[6]:
```
df.loc["us"]
```

[6]:
```
        city  temperature  humidity
0  new york           21         68
1   chicago           14         65
2   orlando           35         75
```

[7]:
```
df.loc["india"]
```

[7]:
```
        city  temperature  humidity
0     mumbai           32         80
1      delhi           45         60
2  banglore           30         78
```

0.4 Concatenation Using Index

[8]:
```
temperature_df = pd.DataFrame({
    "city": ["mumbai","delhi","banglore"],
    "temperature": [32,45,30],
}, index=[0,1,2])
temperature_df
```

[8]:
```
       city  temperature
0    mumbai           32
1     delhi           45
2  banglore           30
```

[9]:
```
windspeed_df = pd.DataFrame({
    "city": ["delhi","mumbai"],
    "windspeed": [7,12],
}, index=[1,0])
windspeed_df
```

[9]:
```
     city  windspeed
1   delhi          7
0  mumbai         12
```

[10]:
```
df = pd.concat([temperature_df,windspeed_df],axis=1)
df
```

[10]:
```
       city  temperature    city  windspeed
0    mumbai           32  mumbai       12.0
1     delhi           45   delhi        7.0
2  banglore           30     NaN        NaN
```

0.5 Concatenate dataframe with series

[11]:
```
s = pd.Series(["Humid","Dry","Rain"], name="event")
s
```

[11]:
```
0    Humid
1      Dry
2     Rain
Name: event, dtype: object
```

[12]:
```
df = pd.concat([temperature_df,s],axis=1)
df
```

[12]:
```
       city  temperature  event
0    mumbai           32  Humid
1     delhi           45    Dry
```

```
2  banglore          30   Rain
```