

Pandas - Melt

January 8, 2023

1 Pandas Melt Function

```
[1]: import pandas as pd
df = pd.read_csv('weather.csv')
df.head()
```

```
[1]:
```

| | day | Dhaka | Sylhet | Chittagong |
|---|-----------|-------|--------|------------|
| 0 | Monday | 20 | 21 | 21 |
| 1 | Tuesday | 20 | 26 | 26 |
| 2 | Wednesday | 25 | 27 | 26 |
| 3 | Thursday | 20 | 27 | 22 |
| 4 | Friday | 26 | 22 | 27 |

```
[4]: df1 = pd.melt(df, id_vars=['day']) # id_vars = id variable, x axis or column,
↳ melt works as pivot to some extent
df1
```

```
[4]:
```

| | day | variable | value |
|----|-----------|------------|-------|
| 0 | Monday | Dhaka | 20 |
| 1 | Tuesday | Dhaka | 20 |
| 2 | Wednesday | Dhaka | 25 |
| 3 | Thursday | Dhaka | 20 |
| 4 | Friday | Dhaka | 26 |
| 5 | Saturday | Dhaka | 20 |
| 6 | Sunday | Dhaka | 26 |
| 7 | Monday | Sylhet | 21 |
| 8 | Tuesday | Sylhet | 26 |
| 9 | Wednesday | Sylhet | 27 |
| 10 | Thursday | Sylhet | 27 |
| 11 | Friday | Sylhet | 22 |
| 12 | Saturday | Sylhet | 20 |
| 13 | Sunday | Sylhet | 25 |
| 14 | Monday | Chittagong | 21 |
| 15 | Tuesday | Chittagong | 26 |
| 16 | Wednesday | Chittagong | 26 |
| 17 | Thursday | Chittagong | 22 |
| 18 | Friday | Chittagong | 27 |
| 19 | Saturday | Chittagong | 23 |

20 Sunday Chittagong 23

```
[7]: df1[df1['variable']=='Dhaka'] # Accessing
```

```
[7]:
```

| | day | variable | value |
|---|-----------|----------|-------|
| 0 | Monday | Dhaka | 20 |
| 1 | Tuesday | Dhaka | 20 |
| 2 | Wednesday | Dhaka | 25 |
| 3 | Thursday | Dhaka | 20 |
| 4 | Friday | Dhaka | 26 |
| 5 | Saturday | Dhaka | 20 |
| 6 | Sunday | Dhaka | 26 |

```
[8]: df1[df1['variable']=='Sylhet'] # Accessing
```

```
[8]:
```

| | day | variable | value |
|----|-----------|----------|-------|
| 7 | Monday | Sylhet | 21 |
| 8 | Tuesday | Sylhet | 26 |
| 9 | Wednesday | Sylhet | 27 |
| 10 | Thursday | Sylhet | 27 |
| 11 | Friday | Sylhet | 22 |
| 12 | Saturday | Sylhet | 20 |
| 13 | Sunday | Sylhet | 25 |

1.0.1 Documentation

<https://pandas.pydata.org/docs/reference/api/pandas.melt.html>

Changing Column Names

```
[10]: df1 = pd.melt(df, id_vars=['day'], var_name = 'City', value_name = 'Temperature')
df1
```

```
[10]:
```

| | day | City | Temperature |
|----|-----------|--------|-------------|
| 0 | Monday | Dhaka | 20 |
| 1 | Tuesday | Dhaka | 20 |
| 2 | Wednesday | Dhaka | 25 |
| 3 | Thursday | Dhaka | 20 |
| 4 | Friday | Dhaka | 26 |
| 5 | Saturday | Dhaka | 20 |
| 6 | Sunday | Dhaka | 26 |
| 7 | Monday | Sylhet | 21 |
| 8 | Tuesday | Sylhet | 26 |
| 9 | Wednesday | Sylhet | 27 |
| 10 | Thursday | Sylhet | 27 |
| 11 | Friday | Sylhet | 22 |
| 12 | Saturday | Sylhet | 20 |
| 13 | Sunday | Sylhet | 25 |

| | | | |
|----|-----------|------------|----|
| 14 | Monday | Chittagong | 21 |
| 15 | Tuesday | Chittagong | 26 |
| 16 | Wednesday | Chittagong | 26 |
| 17 | Thursday | Chittagong | 22 |
| 18 | Friday | Chittagong | 27 |
| 19 | Saturday | Chittagong | 23 |
| 20 | Sunday | Chittagong | 23 |