pandas

Functions and **Maps**

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Function

In pandas, function() refers to custom functions applied to Series or DataFrames for data manipulation or analysis.

```python
import pandas as pd

# Create a DataFrame
df = pd.DataFrame({
    'Names': ['Alice', 'Bob', 'Charlie', 'David']
})

# Define a custom function
def greet(name):
    return f"Hello, {name}!"

# Apply the function to the 'Names' column
df['Greeting'] = df['Names'].apply(greet)

print(df)
```

```
    Names          Greeting
0    Alice      Hello, Alice!
1      Bob        Hello, Bob!
2  Charlie    Hello, Charlie!
3    David      Hello, David!
```

Map

In pandas, `map()` applies a function or mapping to each element in a Series for transformation or replacement.

```python
import pandas as pd

# Create a DataFrame
df = pd.DataFrame({
    'Numbers': [1, 2, 3, 4, 5]
})

# Define a mapping function
def square(x):
    return x * x

# Apply the function to the 'Numbers' column
df['Squared'] = df['Numbers'].map(square)

print(df)
```

	Numbers	Squared
0	1	1
1	2	4
2	3	9
3	4	16
4	5	25

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Thankyou

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