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Series:
0    10
1    20
2    30
3    40
4    50
Name: Numbers, dtype: int64

DataFrame:
   Name ... City
0  Alice ... New York
1   Bob ... Los Angeles
2  Charlie ... Chicago

[3 rows x 3 columns]

Accessing column 'Name':
0    Alice
1     Bob
2  Charlie
Name: Name, dtype: object

Accessing row 0 with loc:
Name    Alice
Age      25
City    New York
Name: 0, dtype: object

Accessing row 1 with iloc:
Name    Bob
Age     30
City  Los Angeles
Name: 1, dtype: object

Subset (Name and City columns):
   Name    City
0  Alice  New York
1   Bob  Los Angeles
2  Charlie  Chicago

DataFrame with missing values:
   Name ... City
0  Alice ... New York
1   Bob ... Los Angeles
2  Charlie ... Chicago
3   None ... San Francisco

[4 rows x 3 columns]

After filling missing values:
   Name ... City
0  Alice ... New York
1   Bob ... Los Angeles
2  Charlie ... Chicago
3  Unknown ... San Francisco

[4 rows x 3 columns]

After dropping rows with missing values:
   Name ... City
0  Alice ... New York
1   Bob ... Los Angeles
2  Charlie ... Chicago
3  Unknown ... San Francisco

[4 rows x 3 columns]

Grouped and aggregated data:
Category
A    30
B    70
C    50
Name: Values, dtype: int64

Merged DataFrame:
   ID ... City
0    1 ... New York
1    2 ... Los Angeles

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Concatenated DataFrame:
   Category ... Values
0         A ...  100.0
1         A ...  200.0
2         B ...    NaN
3         B ...    NaN
4         C ...    NaN

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[5 rows x 3 columns]

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Filtered DataFrame (Values > 20):
   Category  Values
2         B     30
3         B     40
4         C     50

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Sorted DataFrame:
   Category  Values
4         C     50
3         B     40
2         B     30
1         A     20
0         A     10

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DataFrame read from CSV:
   Category  Values
0         A     10
1         A     20
2         B     30
3         B     40
4         C     50

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DataFrame read from Excel:
   Category  Values
0         A     10
1         A     20
2         B     30
3         B     40
4         C     50

```

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Pivot Table:
           Values
Category
A             30
B             70
C             50

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Multi-index DataFrame:
Empty DataFrame
Columns: []
Index: [(A, 10), (A, 20), (B, 30), (B, 40), (C, 50)]

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Reshaped DataFrame:
   Category ... Value
0         A ...    10
1         A ...    20
2         B ...    30
3         B ...    40
4         C ...    50

```

[5 rows x 3 columns]