In [3]:
```python
#3 load and store
#1 create a data frame and store the data into specific excel file
import pandas as pd

data = {
    'Name': ['Dharun', 'Barbarian', 'Archer', 'Chad', 'Evil'],
    'Age': [24, 27, 22, 32, 29],
    'City': ['New York', 'Los Angeles', 'Chicago', 'Houston', 'Tokyo']
}

df = pd.DataFrame(data)

file_path = 'output.xlsx'
df.to_excel(file_path, index=False)
print(f"DataFrame has been saved to {file_path}")
```

```
DataFrame has been saved to output.xlsx
```

In [4]:
```python
#2 Read and display the excel file data
import pandas as pd
file_path = 'output.xlsx'
df = pd.read_excel(file_path)
print("Data from the Excel file:")
print(df)
```

```
Data from the Excel file:
        Name  Age         City
0     Dharun   24     New York
1  Barbarian   27  Los Angeles
2     Archer   22      Chicago
3       Chad   32      Houston
4       Evil   29        Tokyo
```

In [5]:
```python
#3 Display the details of Column headings and shape
import pandas as pd
file_path = 'output.xlsx'
df = pd.read_excel(file_path)
print("Column Headings:")
print(df.columns.tolist())
print("\nShape of the DataFrame:")
print(df.shape)
```

```
Column Headings:
['Name', 'Age', 'City']

Shape of the DataFrame:
(5, 3)
```

In [8]:
```
#4 Display the particular column values , row values and
#do slicing operations
# Display values of column 'Name'
print("Values of column 'Name':")
print(df['Name'])

# Display values of the row with index 2
print("\nValues of row with index 2:")
print(df.loc[2])
```

```
Values of column 'Name':
0       Dharun
1    Barbarian
2       Archer
3         Chad
4         Evil
Name: Name, dtype: object

Values of row with index 2:
Name     Archer
Age          22
City    Chicago
Name: 2, dtype: object
```

In [7]:
```
# Slice rows from index 1 to 3 (inclusive of 1, exclusive of 4)
print("\nSliced rows from index 1 to 3:")
print(df.iloc[1:4])
```

```
Sliced rows from index 1 to 3:
        Name  Age         City
1  Barbarian   27  Los Angeles
2     Archer   22      Chicago
3       Chad   32      Houston
```

In [9]:
```
# Slice columns 'Name' and 'City'
print("\nSliced columns 'Name' and 'City':")
print(df[['Name', 'City']])
```

```
Sliced columns 'Name' and 'City':
        Name         City
0     Dharun     New York
1  Barbarian  Los Angeles
2     Archer      Chicago
3       Chad      Houston
4       Evil        Tokyo
```

In [10]:
```
# Slice rows from index 1 to 3 and columns 'Name' and 'Age'
print("\nSliced rows from index 1 to 3 and columns 'Name' and 'Age':")
print(df.loc[1:3, ['Name', 'Age']])
```

```
Sliced rows from index 1 to 3 and columns 'Name' and 'Age':
        Name  Age
1  Barbarian   27
2     Archer   22
3       Chad   32
```

In [18]:
```
#5 To read two excel file data and merge through the append function
#and store the merged data into the new Excel file
import pandas as pd

data1 = {
    'Name': ['Dragon', 'Wallbreaker'],
    'Age': [24, 27],
    'City': ['New York', 'Los Angeles']
}

# Create DataFrame for the first file
df1 = pd.DataFrame(data1)

# Save the first DataFrame to an Excel file
file_path1 = 'file1.xlsx'
df1.to_excel(file_path1, index=False)

data2 = {
    'Name': ['Wizard', 'Evil'],
    'Age': [22, 32],
    'City': ['Chicago', 'Houston']
}

df2 = pd.DataFrame(data2)
file_path2 = 'file2.xlsx'
df2.to_excel(file_path2, index=False)

print(f"DataFrame has been saved to {file_path1}")
print(f"DataFrame has been saved to {file_path2}")
```

```
DataFrame has been saved to file1.xlsx
DataFrame has been saved to file2.xlsx
```

In [16]:
```
df1 = pd.read_excel(file_path1)
df2 = pd.read_excel(file_path2)
merged_df = pd.concat([df1, df2], ignore_index=True)
merged_file_path = 'merged_output.xlsx'
merged_df.to_excel(merged_file_path, index=False)
print(f"Merged DataFrame has been saved to {merged_file_path}")
```

```
Merged DataFrame has been saved to merged_output.xlsx
```

In [17]:
```
file_path = 'merged_output.xlsx'
df = pd.read_excel(file_path)
print("Data from the Excel file:")
print(df)
```

```
Data from the Excel file:
          Name  Age         City
0       Dragon   24     New York
1  Wallbreaker   27  Los Angeles
2       Wizard   22      Chicago
3         Evil   32      Houston
```

In [19]:
```
#6 Using sort function to sort and store the resultant
#data into a new Excel file
df1 = pd.read_excel(file_path1)
df2 = pd.read_excel(file_path2)
merged_df = pd.concat([df1, df2], ignore_index=True)
sorted_df = merged_df.sort_values(by='Age')
sorted_file_path = 'sorted_output.xlsx'
sorted_df.to_excel(sorted_file_path, index=False)
print(f"Sorted DataFrame has been saved to {sorted_file_path}")
```

```
Sorted DataFrame has been saved to sorted_output.xlsx
```

In [20]:
```
file_path = 'sorted_output.xlsx'
df = pd.read_excel(file_path)
print("Data from the Excel file:")
print(df)
```

```
Data from the Excel file:
          Name  Age         City
0       Wizard   22      Chicago
1       Dragon   24     New York
2  Wallbreaker   27  Los Angeles
3         Evil   32      Houston
```

In [ ]: