3 Load and Store

Aim: To Create and store Excel / CSV Data Series files and store the Same. Do some basic operations

Description:

1. Create a dataframe and store the data into specific excel file
2. Read and display the excel file data.
3. Display the details of Column headings and shape.
4. Display the particular column values , row values and do slicing operations.
5. To read two excel file data and merge through the append function and store the merged data into the new Excel file.
6. Using sort function to sort and store the resultant data into a new Excel file.

```
#Create a dataframe and store the data into specific excel file
import pandas as pd
df = pd.DataFrame({'Name': ['Bob', 'Alice'],
                   'Age': [25, 30]})
df.to_excel('my_data.xlsx', sheet_name='Sheet1', index=False)
print(df)
```

```
O/P:
   Name  Age
0    Bob   25
1  Alice   30
```

```
#Read and display the excel file data.
df = pd.read_excel('my_data.xlsx')
display(df)
O/P
```

	Name	Age
0	Bob	25
1	Alice	30

```
#Display the details of Column headings and shape.
print(df.columns)
print(df.shape)
O/P:
Index(['Name', 'Age'], dtype='object')
(2, 2)
```

```
#Display the particular column values , row values and do slicing
operations.
print(df['Name'])
print(df.iloc[0])
```

```
print(df.iloc[:2])
print(df.iloc[:, 0])
print(df.iloc[:, :2])

O/P:
0      Bob
1    Alice
Name: Name, dtype: object
Name    Bob
Age      25
Name: 0, dtype: object
    Name  Age
0    Bob   25
1  Alice   30
0      Bob
1    Alice
Name: Name, dtype: object
    Name  Age
0    Bob   25
1  Alice   30


#CREATING 2ND DATA FRAME
df2 = pd.DataFrame({'Name': ['Aju', 'Amar'],
                    'Age': [18, 27]})
df2.to_excel('my_data1.xlsx', sheet_name='Sheet2', index=False)
print(df)
#Read and display the excel file data.
df = pd.read_excel('my_data1.xlsx')
display(df)
O/P:
   Name  Age
0    Bob   25
1  Alice   30
```

	Name	Age
0	Aju	18
1	Amar	27

```
#To read two excel file data and merge through the append function and
store the merged data into the new Excel file.
df1 = pd.read_excel('my_data.xlsx')
df2 = pd.read_excel('my_data1.xlsx')
merged_df = pd.concat([df1,df2], ignore_index=True)
merged_df.to_excel('merged_data.xlsx', index=False)
print(merged_df)
O/P:
    Name  Age
0    Bob   25
1  Alice   30
2    Aju   18
3   Amar   27

# Read the merged data
merged_df = pd.read_excel('merged_data.xlsx')
```

```
# Sort the DataFrame by 'Name' column in ascending order
merged_df_sorted = merged_df.sort_values(by='Name')

# Save the sorted DataFrame to a new Excel file
merged_df_sorted.to_excel('merged_data_sorted.xlsx', index=False)

print(merged_df_sorted)
O/P:
   Name  Age
2    Aju   18
1  Alice   30
3   Amar   27
0    Bob   25
```