2.EDA-Data Import and Export

AIM:

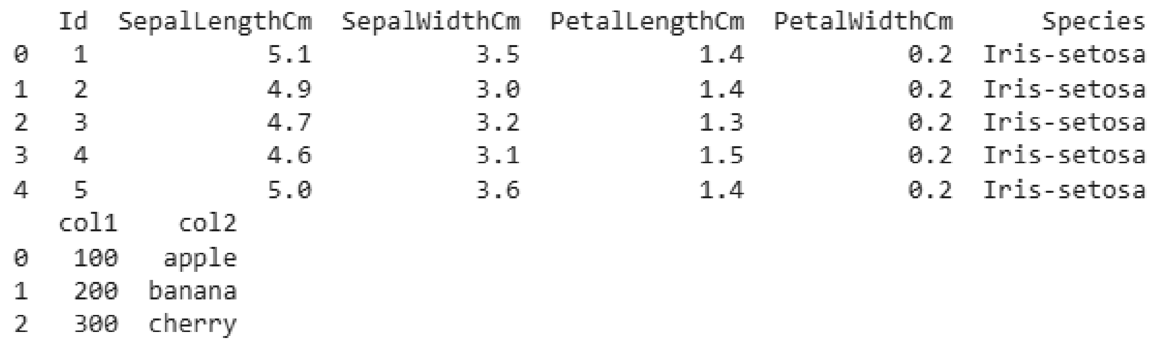
- 🎬 Importing data from CSV, Excel, SQL databases, and web scraping
- 🎬 Handling different data formats
- 🎬 Export a DataFrame to an Excel file.

PROGRAM:

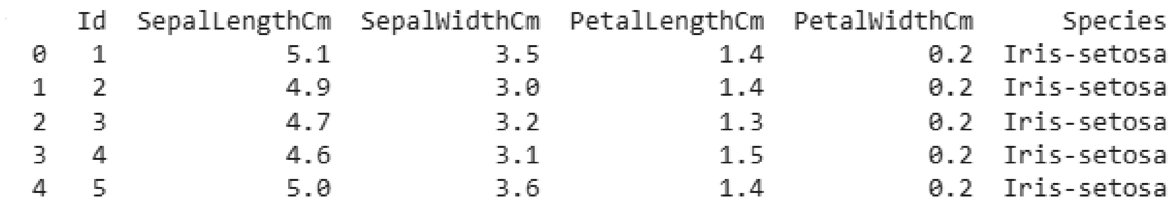
```
import pandas as pd

# For CSV
df_csv = pd.read_csv('/content/Iris.csv')
print(df_csv.head())

# For Excel
df_excel = pd.read_excel('/content/exported_data.xlsx')
print(df_excel.head())

url = '/content/Iris.csv'  # Replace with actual URL
df = pd.read_csv(url)
print(df.head())

import pandas as pd

url =
'https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal)'
tables = pd.read_html(url)  # returns a list of DataFrames
df = tables[0]  # First table
print(df.head())

import requests
from bs4 import BeautifulSoup

url = 'https://example.com'
response = requests.get(url)
soup = BeautifulSoup(response.text, 'html.parser')

# Example: extract all paragraph text
for para in soup.find_all('p'):
    print(para.text)
```

```python
import pandas as pd
import json
from io import StringIO

# Create a dummy JSON string for demonstration
json_data = """
[
  {"name": "Alice", "age": 30, "city": "New York"},
  {"name": "Bob", "age": 25, "city": "London"},
  {"name": "Charlie", "age": 35, "city": "Paris"}
]
"""

# Load JSON data into a DataFrame using StringIO
df_from_json = pd.read_json(StringIO(json_data))
print("\nData from JSON:")
display(df_from_json)
import pandas as pd

# Create a sample DataFrame
df_to_export = pd.DataFrame({
    'col1': [100, 200, 300],
    'col2': ['apple', 'banana', 'cherry']
})

# Export the DataFrame to an Excel file
output_filename = 'exported_data.xlsx'
df_to_export.to_excel(output_filename, index=False)

print(f"DataFrame successfully exported to {output_filename}")
```

OUTPUT:



```
   Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm      Species
0   1            5.1           3.5            1.4           0.2  Iris-setosa
1   2            4.9           3.0            1.4           0.2  Iris-setosa
2   3            4.7           3.2            1.3           0.2  Iris-setosa
3   4            4.6           3.1            1.5           0.2  Iris-setosa
4   5            5.0           3.6            1.4           0.2  Iris-setosa
   col1    col2
0   100   apple
1   200  banana
2   300  cherry
```



```
   Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm      Species
0   1            5.1           3.5            1.4           0.2  Iris-setosa
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```
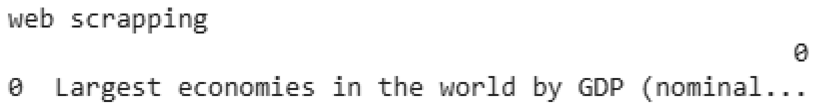
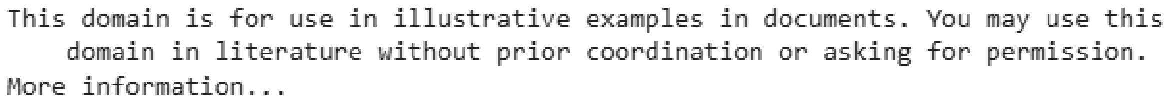
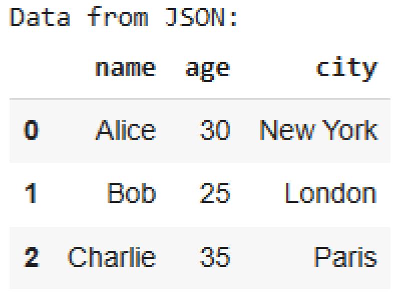



```
web scrapping
                                                    0
0  Largest economies in the world by GDP (nominal...
```



```
This domain is for use in illustrative examples in documents. You may use this
    domain in literature without prior coordination or asking for permission.
More information...
```



Data from JSON:

	name	age	city
0	Alice	30	New York
1	Bob	25	London
2	Charlie	35	Paris

```
DataFrame successfully exported to exported_data.xlsx
```

RESULT:

Thus the program was written and executed successfully.