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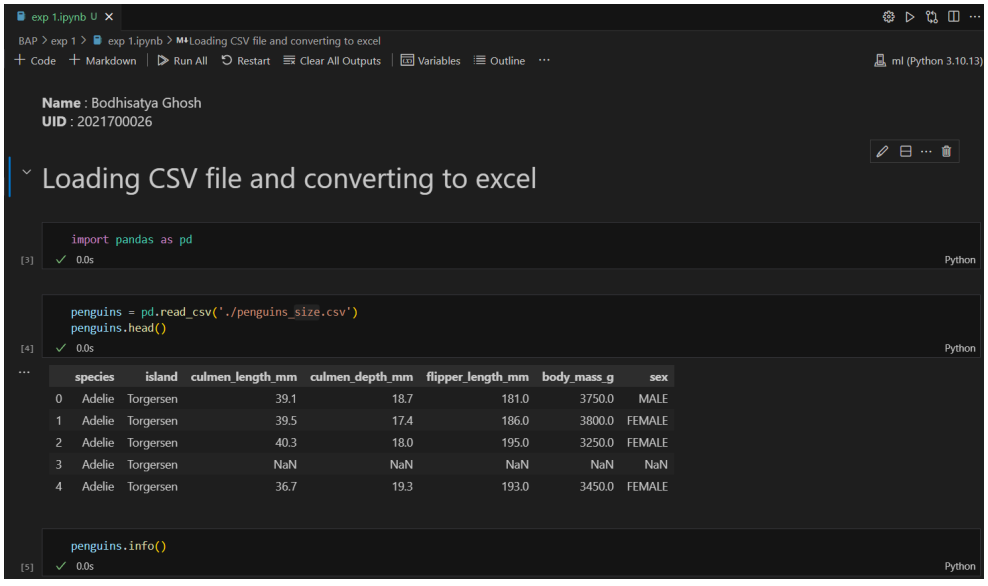
Experiment 1	
HONOUR PLEDGE	**“ I hereby declare that the documentation, code and output attached with this lab experiment has been completed by me in accordance with the highest standards of honesty. I confirm that I have not plagiarized OR used unauthorized materials OR given or received illegitimate help for completing this experiment. I will uphold equity and honesty in the evaluation of my work and if found guilty of plagiarism or dishonesty, will bear the consequences as outlined in the ‘integrity’ section of the lab rubrics. I am doing so in order to maintain a community built around this code of honour”**
PROBLEM STATEMENT :	**Data Importing and Exporting:** ● Read a CSV file into a pandas DataFrame ● Export a Data Frame to an Excel file. ● Load JSON data into DataFrame ● (Bonus) Data insight or visualization
THEORY:	Using Pandas to load CSV files and then convert them to other tabular file types. Loading JSON files and creating DataFrames with them
PROGRAM:	

```
penguins.info()
```

[5] ✓ 0.0s Python

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 344 entries, 0 to 343
Data columns (total 7 columns):
 #   Column             Non-Null Count  Dtype
---  ------             --------------  -----
 0   species            344 non-null    object
 1   island             344 non-null    object
 2   culmen_length_mm   342 non-null    float64
 3   culmen_depth_mm    342 non-null    float64
 4   flipper_length_mm  342 non-null    float64
 5   body_mass_g        342 non-null    float64
 6   sex                334 non-null    object
dtypes: float64(4), object(3)
memory usage: 18.9+ KB
```

```
penguins.isna().sum()
```

[6] ✓ 0.0s Python

```
species              0
island               0
culmen_length_mm     2
culmen_depth_mm      2
flipper_length_mm    2
body_mass_g          2
sex                 10
dtype: int64
```

```
penguins.dropna(inplace=True)
```

[7] ✓ 0.0s Python

```
penguins.info()
```

[8] ✓ 0.0s Python

```
<class 'pandas.core.frame.DataFrame'>
Index: 334 entries, 0 to 343
Data columns (total 7 columns):
 #   Column             Non-Null Count  Dtype
---  ------             --------------  -----
 0   species            334 non-null    object
 1   island             334 non-null    object
 2   culmen_length_mm   334 non-null    float64
 3   culmen_depth_mm    334 non-null    float64
 4   flipper_length_mm  334 non-null    float64
 5   body_mass_g        334 non-null    float64
 6   sex                334 non-null    object
dtypes: float64(4), object(3)
memory usage: 20.9+ KB
```

```
penguins.to_excel('penguins_size.xlsx')
```

[9] ✓ 1.1s Python

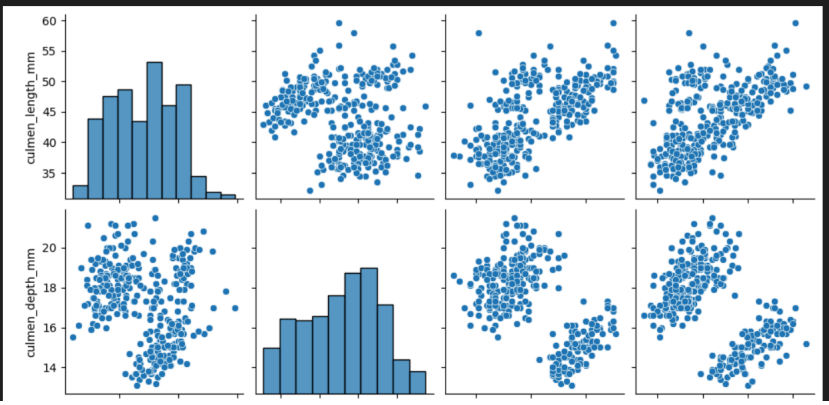
```
import seaborn as sns
```

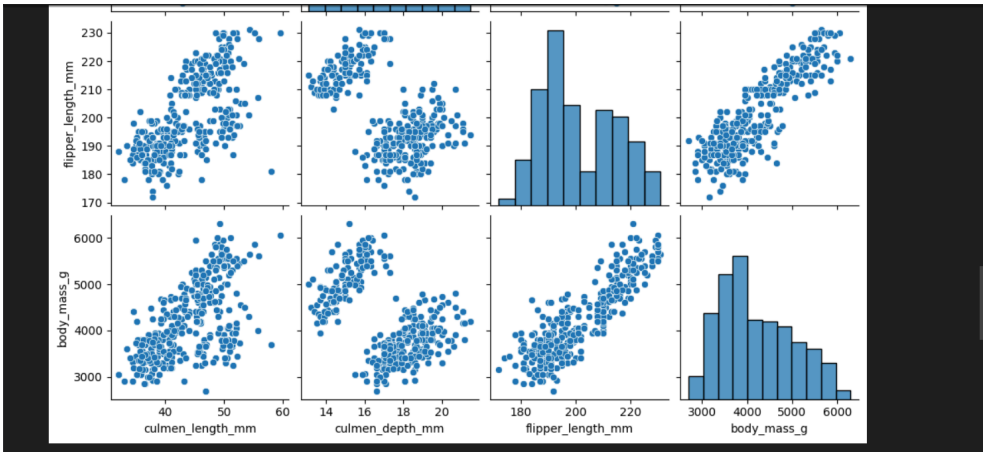
[10] ✓ 0.0s Python

```
sns.pairplot(penguins)
```

[11] ✓ 7.9s Python

```
<seaborn.axisgrid.PairGrid at 0x2bae2c27400>
```





Loading JSON file and converting to CSV

```
import json
with open('./indian_states.json') as file:
    json_data = json.load(file)
```
[12] ✓ 0.0s Python

```
data = {"State ID":[state['state']['state_id'] for state in json_data],
        "State Name":[state['state']['state_name'] for state in json_data]}
```
[13] ✓ 0.0s Python

```
indian_states = pd.DataFrame(data)
indian_states.head()
```
[16] ✓ 0.0s Python

	State ID	State Name
0	AN	Andaman and Nicobar Island (UT)
1	AP	Andhra Pradesh
2	AR	Arunachal Pradesh
3	AS	Assam
4	BR	Bihar

```
indian_states.to_csv('indian_states.csv')
```
[15] ✓ 0.0s Python

RESULT:	Given CSV files were converted to excel sheets (.xlsx) format. Given JSON files were loaded then converted to pandas Dataframes

References:	
CONCLUSION: In this experiment I have learnt how to load CSV and JSON files and then convert them to other types using Pandas and JSON libraries in python.	