

This practice is designed to help you understand the material better. You should answer all questions by writing a Python program

Problem 1

Run the following code to create a table of StudentIDs and GPAs:

```
data = pd.DataFrame({ 'StudentID' : [123, 456, 456, None], 'GPA': [3.5, 3.1, 3.1, 4.0] })
```

Take a look at the table and explain the meaning of **None**?

Now run the following commands one by one and see what happens in each case, then explain the command.

- `data.dropna()`
- `data.drop_duplicates()`
- `data.rename(columns = {'StudentID':'ID'})`

Problem 2

Continue the example you saw about plotting X vs. Y in the videos and add these columns to the code:

```
plt.axes().set_xlim([0, 1])  
plt.axes().set_ylim([-1, 4])
```

Explain what you learned from these commands.

Problem 3

If you can change one thing about Python, what would it be?