Pandas Exercise

You receive a data file about customers who made various purchases in-store and online.

1. Read the file and convert it into a table.

2. Use the function **unique** on the column in the table called "marital\_status," which describes the individual's personal status (whether single, married, etc.), and print the existing values in this column.

3. According to the results from the previous question, if there are two values that have the same meaning, combine them into the same value using the function **replace**.

4. Use the function value\_counts with the option normalize=True (that converts the frequency of each value to percentages) on the column "educational\_level" to find out what percentage of people have at least a secondary degree.

5. Use **loc** and **isin** to select only the single individuals from the table. Then, sort their annual income in descending order using sort\_values and print it.

6. Add a new column for the total sum of purchases in general (meaning the sum of online and in-store purchases).

7. Add a column for low, medium, and high based on the total number of purchases made by each person. If they made less than 10 purchases, consider it low; if between 10 and 20, consider it medium; and if over 20, consider it high.

8. Display a pie chart based on the low, medium, and high column. Add labels to each part of the pie.

9. Use **groupby** to display the table based on the low-medium-high column, and show the average number of online, in-store purchases, and total annual income.

10. Display a graph consisting of two graphs using subplot: the first one with the X-axis as the person's education level (convert the values to numbers, where basic education is 0 and doctorate is 4), and the Y-axis as their annual income. The second one with the X-axis as the person's education level (convert the values to numbers, where basic education is 0 and doctorate is 3), and the Y-axis as the number of purchases they made. Add titles.

You can refer to the following link for assistance: (https://towardsdatascience.com/pandas-in-practice-64be9228062a)