For this Exercise the Data has been taken from(https://github.com/AlexTheAnalyst/Excel-Tutorial/blob/main/Excel%20Project%20Dataset.xlsx).

Steps Performed: -

1) copy the original data into a new worksheet so that if we make any mistakes we can always go back.

2) Apply filter to all the columns in the dataset.

3) Check for duplicates and remove them. Select Data-> remove duplicates.

4) Here there is a small problem in the Marital status M and S are okay but for someone who doesn't know what M and S I have hence replaced them with Married and single so it's better for someone new seeing the Data.
    1) Select that Column B and do find and replace.

5) Similarly in the Gender column it's better to have Male and Female than M, F.
    1) Select the column C and do find and replace.

6) For the age column what I did was used the nested if statement in a way that if the age is above 54 then you are considered as Old, if your age is below 31 then you are considered Adolescent, if age is greater than or equal to the 31 then it is Middle age.
This way it is easier to get an idea of the age groups instead of having age as a number.

Average Income per Purchase

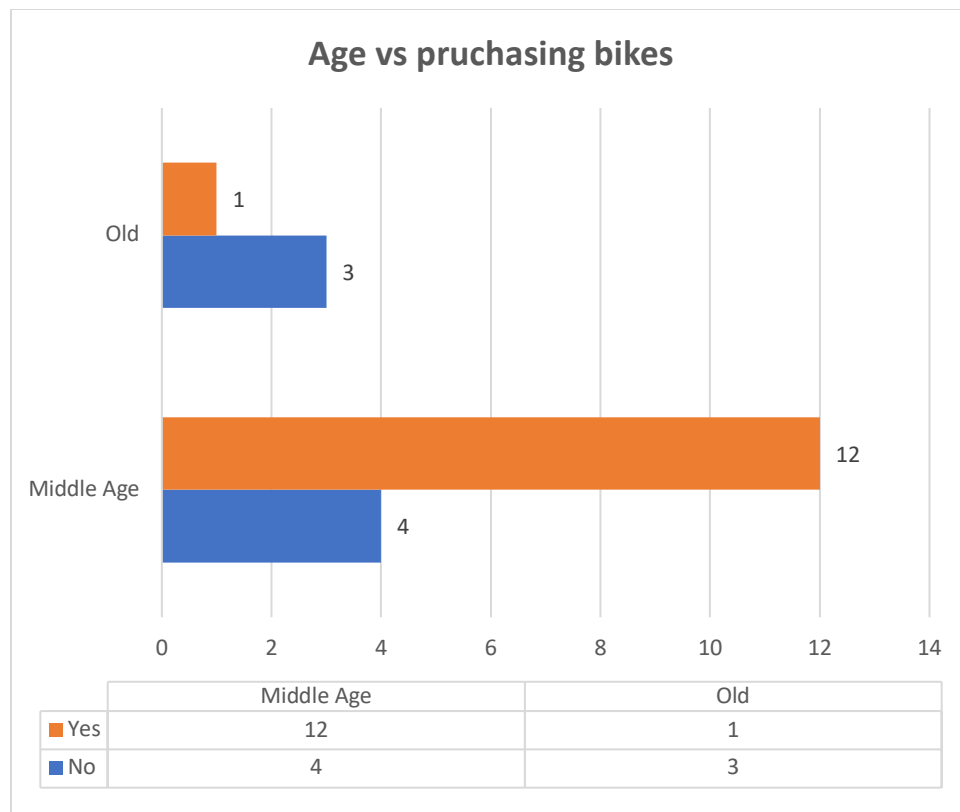|	Female	Male
No	66667	22500
Yes	35000	33333

7) I have used the pivot table and in this chart, we can see that if they have purchased bike or not, If they have purchase what is their average income and if they have not then what is their average income.

From the above graph we can say that that the average income of Male is greater than female irrespective if they have purchased bike or not.

Customer Commute

Count of bikes purchased (y-axis): 0, 2, 4, 6, 8, 10, 12

Commute Distance (x-axis): 0-1 Miles, 1-2 Miles, 2-5 Miles, More than 10 Miles

Legend: No, Yes

8) This is chart the tells us for how many miles how many people are buying bikes.
Here we can see that something interesting is happening, if the commute distance is low then the number of people that are buying bikes is high and if the commute is more than 10 miles then the number of people that are buying bikes reduces drastically.

Age vs pruchasing bikes

	Middle Age	Old
■ Yes	12	1
■ No	4	3

9) In the above graph we can see that most of the people who purchased the bikes as middle age.

Now I am creating a Dashboard for that I copied all the three charts into new worksheet and removed the gridlines from that worksheet. (view -> untick (grid lines))

Now I want my dashboard to also chance depending upon the region or education, Marital status. For that I added a 3 slicer, and I gave them connections to all the 3 pivot tables I have in my dashboard now if I select one of the parameters all my graphs or reports will change accordingly.

The below screenshot is how my end product looks like.

Bike Sales DashBoard

Average Income per Purchase

	Female	Male
No	66667	22500
Yes	35000	33333

Customer Commute

Commute Distance — *Count of bikes purchased*

- No
- Yes

0-1 Miles · 1-2 Miles · 2-5 Miles · More than 10 Miles

Marital Status
- Married
- Single

Region
- Europe
- North America
- Pacific

Education
- Bachelors
- Graduate Degree
- High School
- Partial College
- Partial High School

Age vs pruchasing bikes

	Middle Age	Old
Yes	12	1
No	4	3