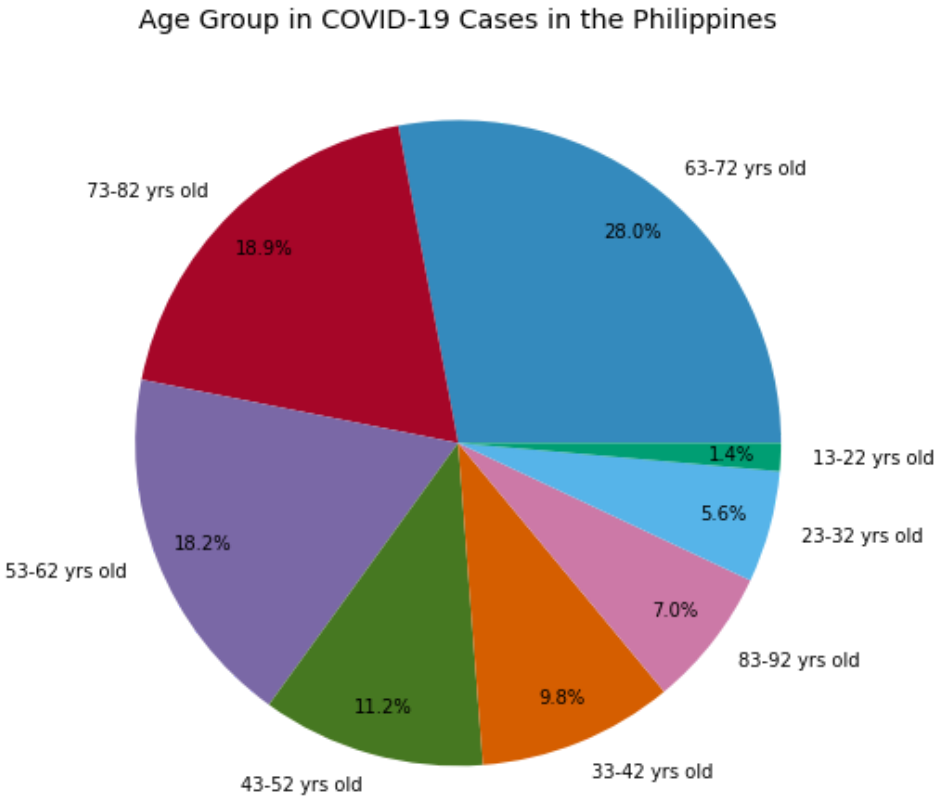
Final Requirements

Name: Abdulrahman Lingga
Choose one: X No collaboration Collaborated with:

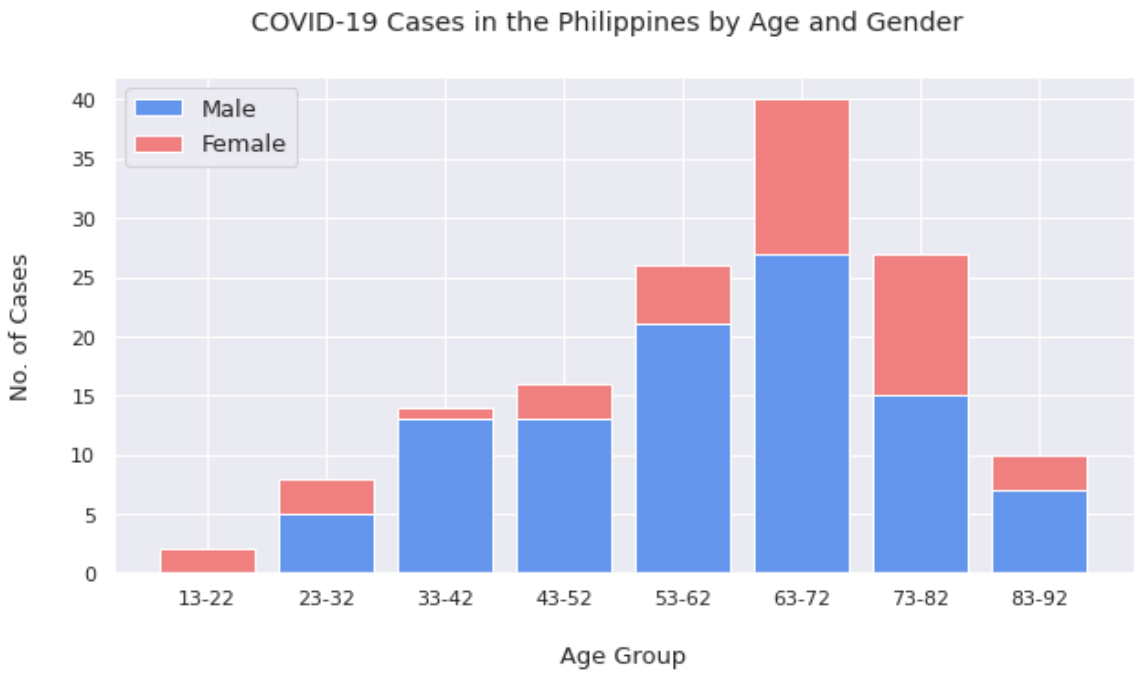
1. Dataset: Covid-19 cases in the Philippines

Perform the following using the datasets provided.

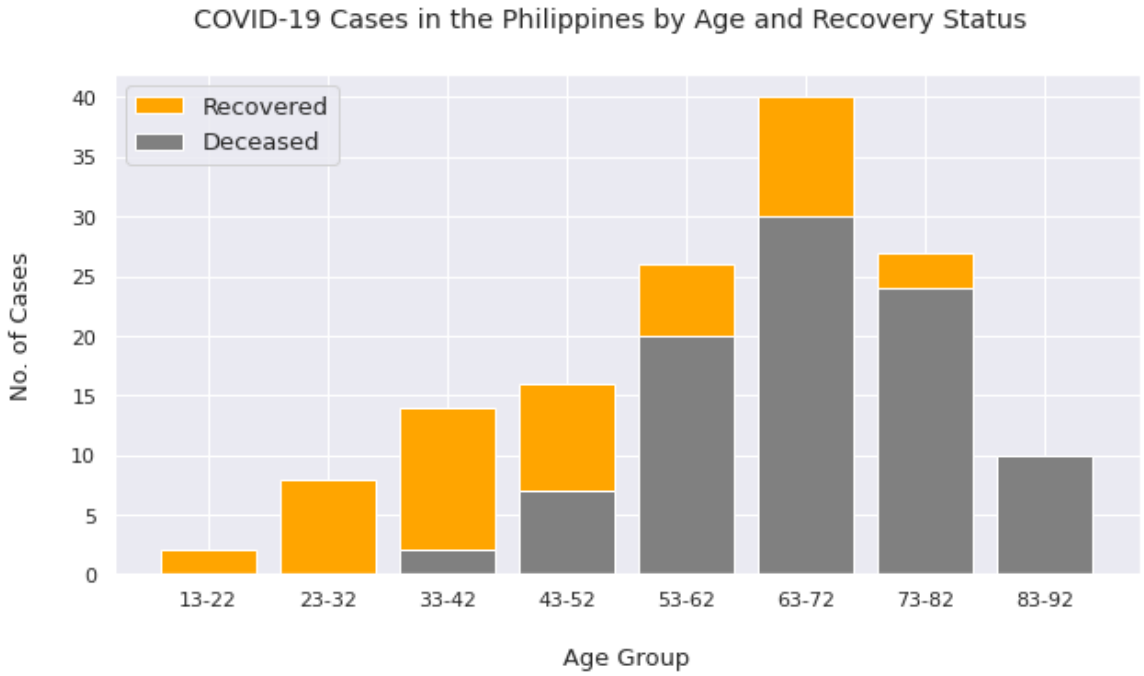
a. Create at least 2 plots/graphs
b. Describe and interpret the data visualization
c. Link of the codes



The pie graph allows us to determine the proportions of age by groups. It is also labeled with percentages to see how much a group makes up the total number. As shown in the graph, people aged 63-72 years old account for the highest number of cases with 28%, followed by 73-82 years old and 53-62 years old with 18.9% and 18.2% respectively. On the other hand, those who were 13-22 years old only made up 1.4% of the total cases.



Each bar represents the number of cases by age group while also showing the proportion of the number of cases by gender. The blue part of the bars represents how many are male whereas the red part of the bars represents how many are female. On the graph, we can see that the age group of 63-72 years old has the most cases and age groups 53-62 years old and 73-82 years old have almost similar numbers. We can also see that the number of cases by age group is dominated by males except for the group of 13-22 years old where all cases are female.



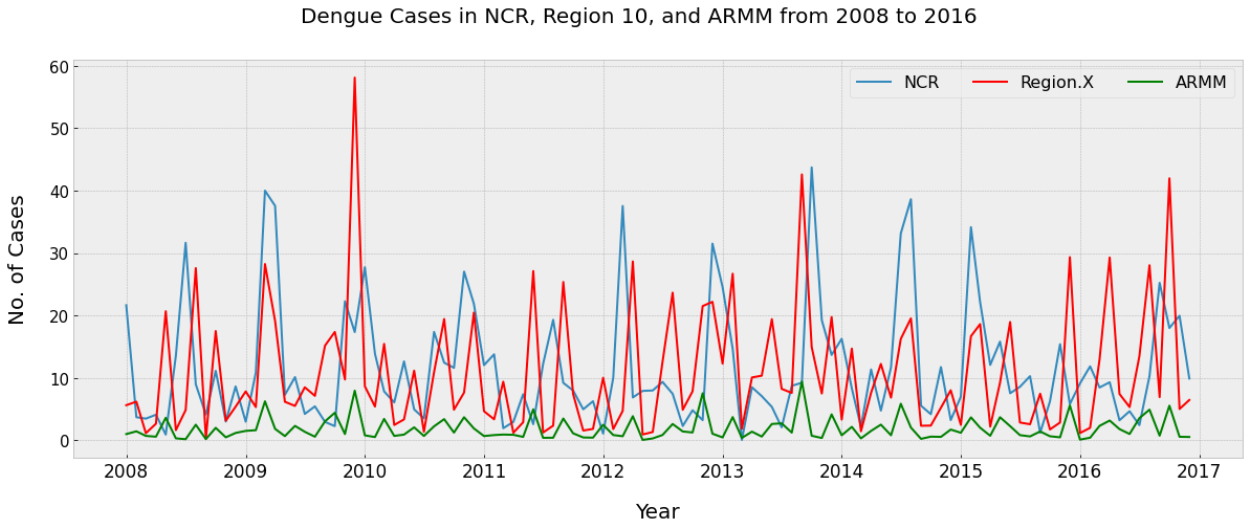
The graph plots the same stacked bar chart as the previous graph, but it now shows instead the proportion of the number of cases by recovery status. The yellow part represents how many are recovered while the gray part shows how many are deceased. On the graph, we can see that cases with younger groups tend to have a higher number of recovered cases. However, as the age group increases, the number of cases that are deceased appears to increase as well. The group aged 83-92 years old does not have a single case that is recovered.

https://colab.research.google.com/drive/1KwD91eshtSsk-4g-KCTmgyEdl6aKJOCP?usp=sharing

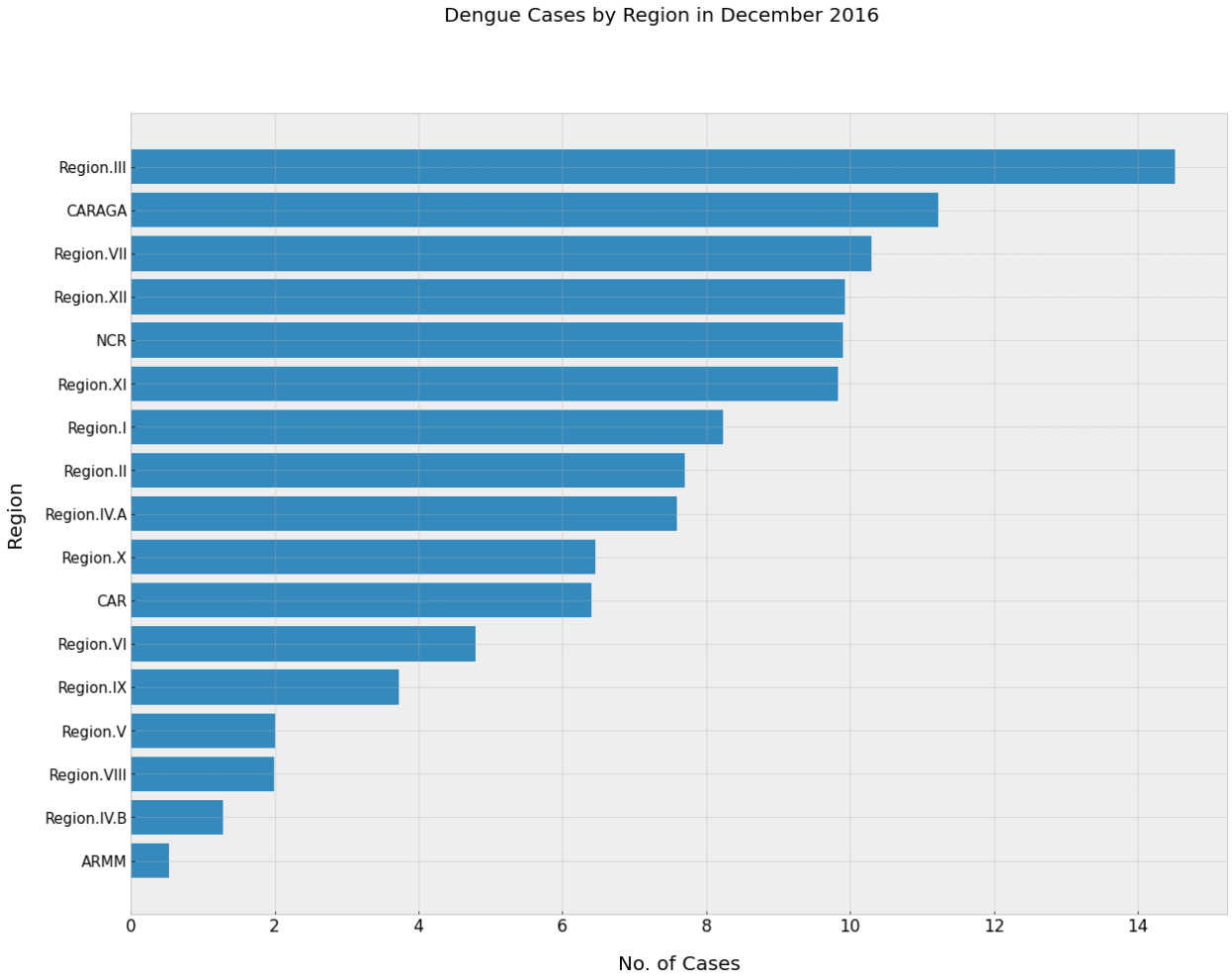
2. Dataset: Dengue Cases

Perform the following using the datasets provided.

a. Create at least 2 plots/graphs
b. Describe and interpret the data visualization
c. Link of the codes.



A line chart is used to compare the number of dengue cases in regions NCR, ARMM, and Region 12. The scale of the graph is also adjusted to clearly observe how the data behaves over time. The blue line represents the cases in NCR while the red and green lines represent the cases in Region 10 and ARMM respectively. On the graph, we can see that dengue cases in ARMM seem to remain stationary over the time period and have a consistently lower number of cases compared to the other two regions. On the other hand, we see NCR and Region 10 swapping spots for the highest monthly cases.



The horizontal bar chart shows the number of dengue cases in December 2016 by region. The bars are placed in descending order. Based on the graph, Region III has the highest number, followed by CARAGA and Region VII. We can also see those other regions have slight differences with each other like in Region XII, NCR, and Region XI; Region II and Region IV-A; Region X and CAR; and Region V and Region IV-B. Meanwhile, ARMM has the lowest number of cases compared to all other regions.

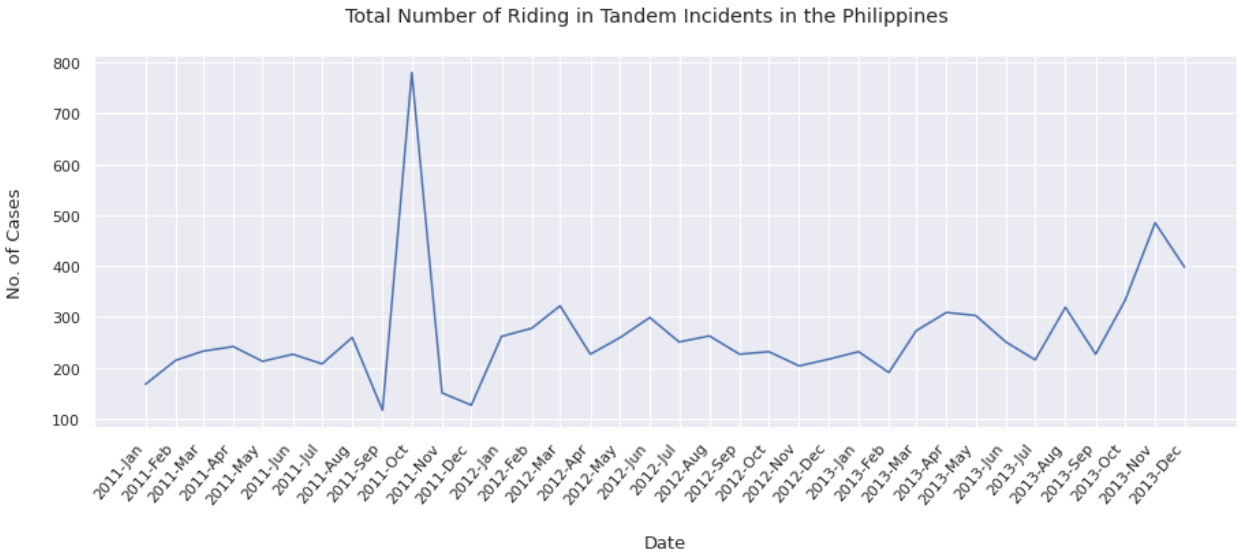
https://colab.research.google.com/drive/1kIrHT5z16T0RlKMlExOwl2EUBYc91g2t?usp=sharing

1. Dataset: Riding in tandem in the Philippines

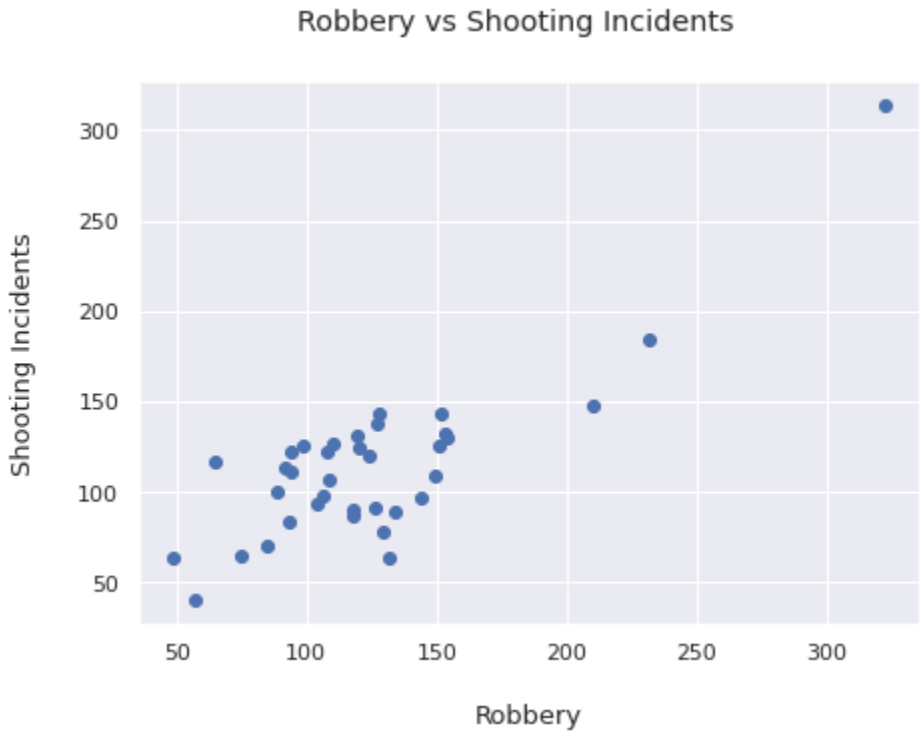
Perform the following using the datasets provided.

a. Create at least 2 plots/graphs
b. Describe and interpret the data visualization

c. Link of the codes



The line graph shows the total number of riding in tandem incidents in the Philippines from 2011 to 2013. The labels are rotated in 50 degrees to make space for all. From the graph, we can see that there is an increase in numbers from January 2011 to December 2013. It also shows that the highest number of cases in the time period happened in October 2011 which almost reached 800 cases.



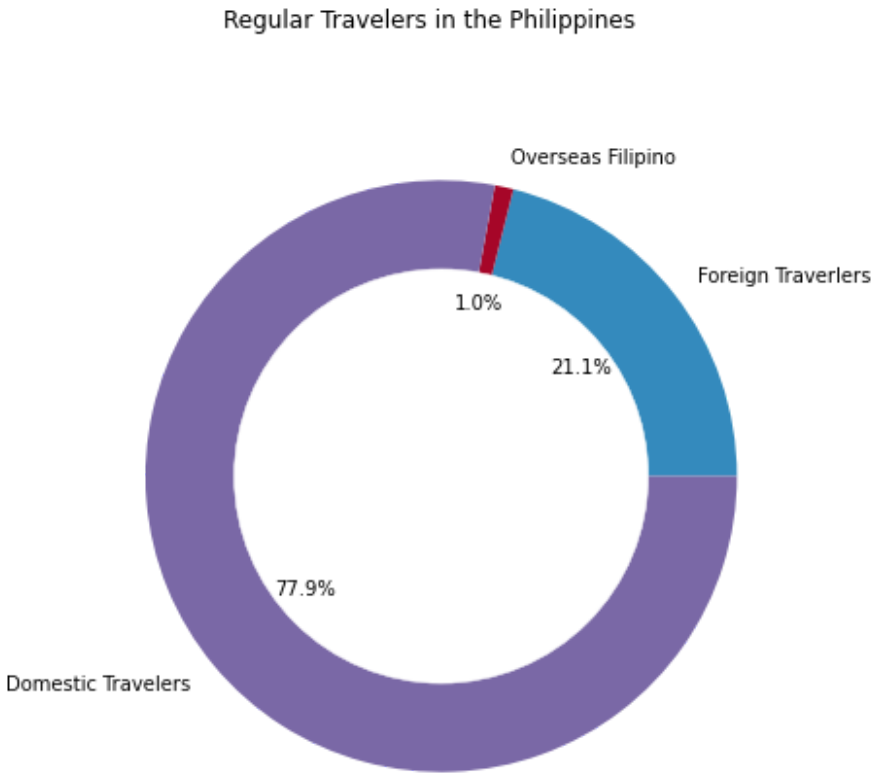
The scatter plot shows the relationship between the number of robberies and shooting incidents in the Philippines from 2011 to 2013. From the graph, we can observe that as the number of cases in robbery increases, the shooting incidents cases also seem to increase. Hence, based on the graph, we can see that there is a positive relationship between the variables.

https://colab.research.google.com/drive/1gBV1i4N_vt0jMe213U-_ZjnyJCP0PMwS?usp=sharing

4. Dataset: List of Regular Travelers in the Philippines

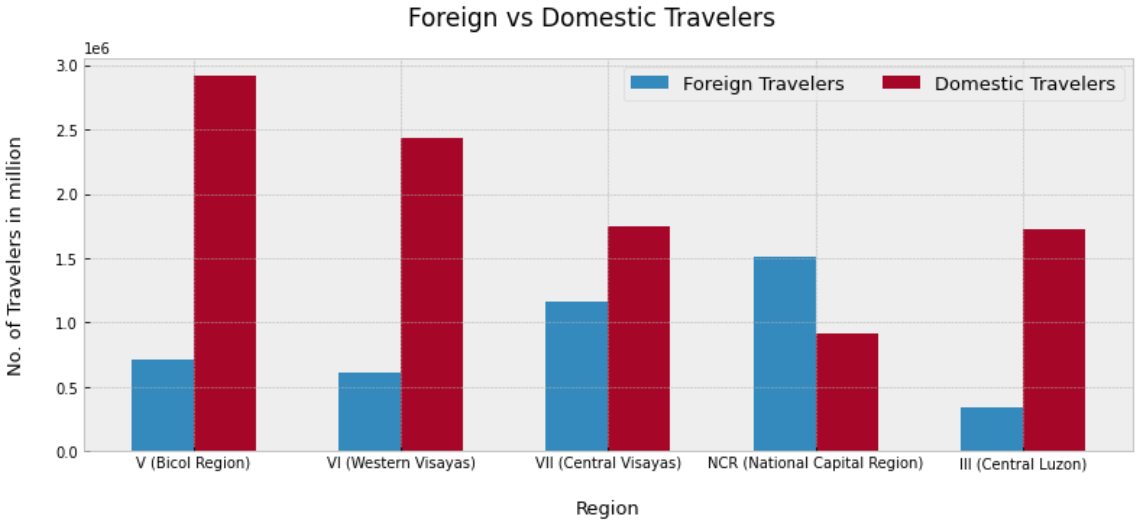
Perform the following using the datasets provided.

a. Create at least 2 plots/graphs
b. Describe and interpret the data visualization
c. Link of the codes



The donut chart compares the number of different types of tourists that make up the total number of travelers in the Philippines in 2012. Each slice also has a different color to represent each type and is arranged in increasing order. From the graph, we can see that overseas Filipinos only account for 1% of the total number of travelers in the

country. This is followed by foreign travelers with 21.1%. Finally, domestic travelers make up the majority of regular travelers in the Philippines with 77.9%.



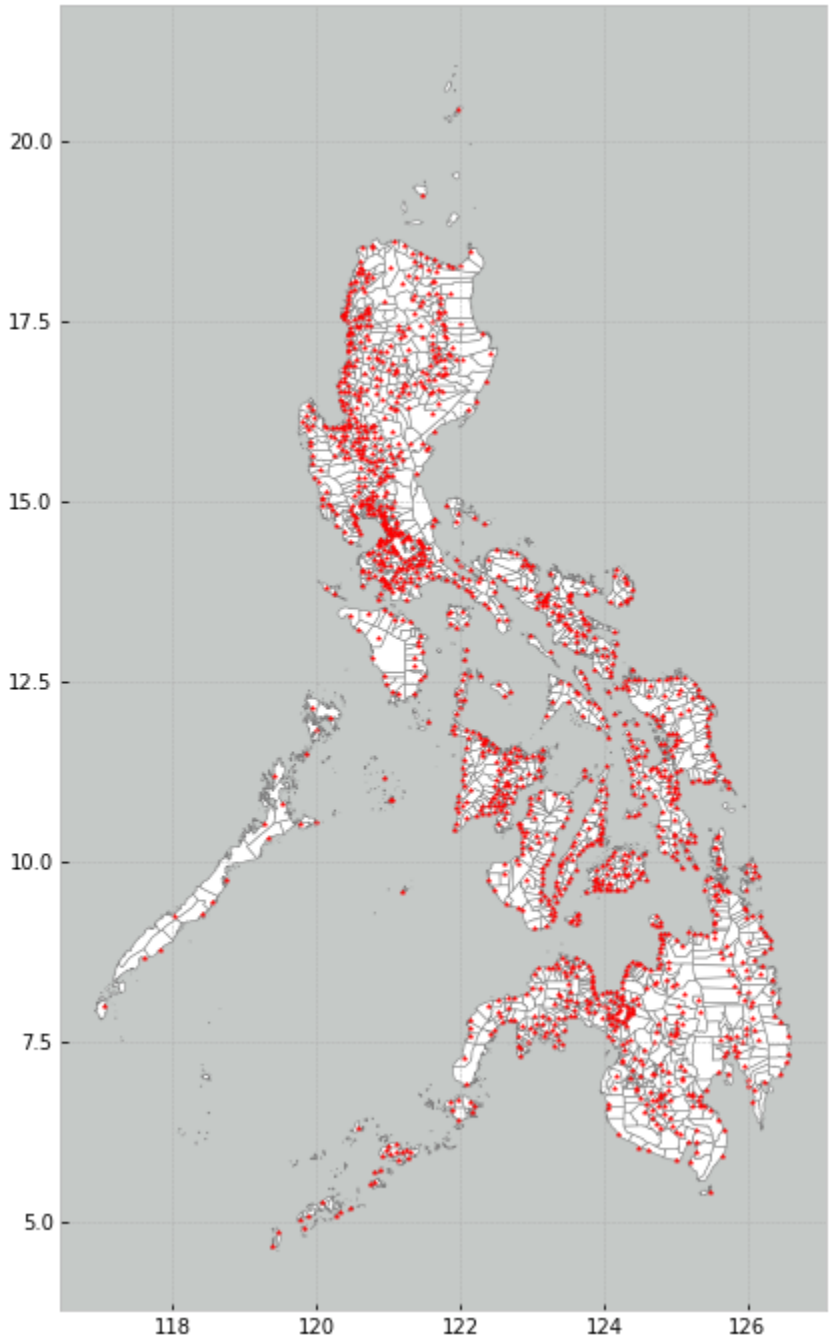
The bar chart compares the number of foreign and domestic travelers among the five regions with the highest number of total travelers in 2012. Based on the graph, we can see that the majority of the travelers in Region V, Region VI, Region VII, and Region III are due to domestic travels. In addition to that, Bicol Region is also known for its active volcanoes, tranquil whale sharks, secret beaches, and spicy food while Western Visayas is known for yearly grand festivals. On the other hand, only the NCR has a higher number of foreign travelers compared to domestic travelers. The NCR is also known as Metropolitan Manila and is the center of the economy and government of the Philippines.

https://colab.research.google.com/drive/1zFttKp_du7nx6qn6uA90iQrGKVsiZJIg?usp=sharing

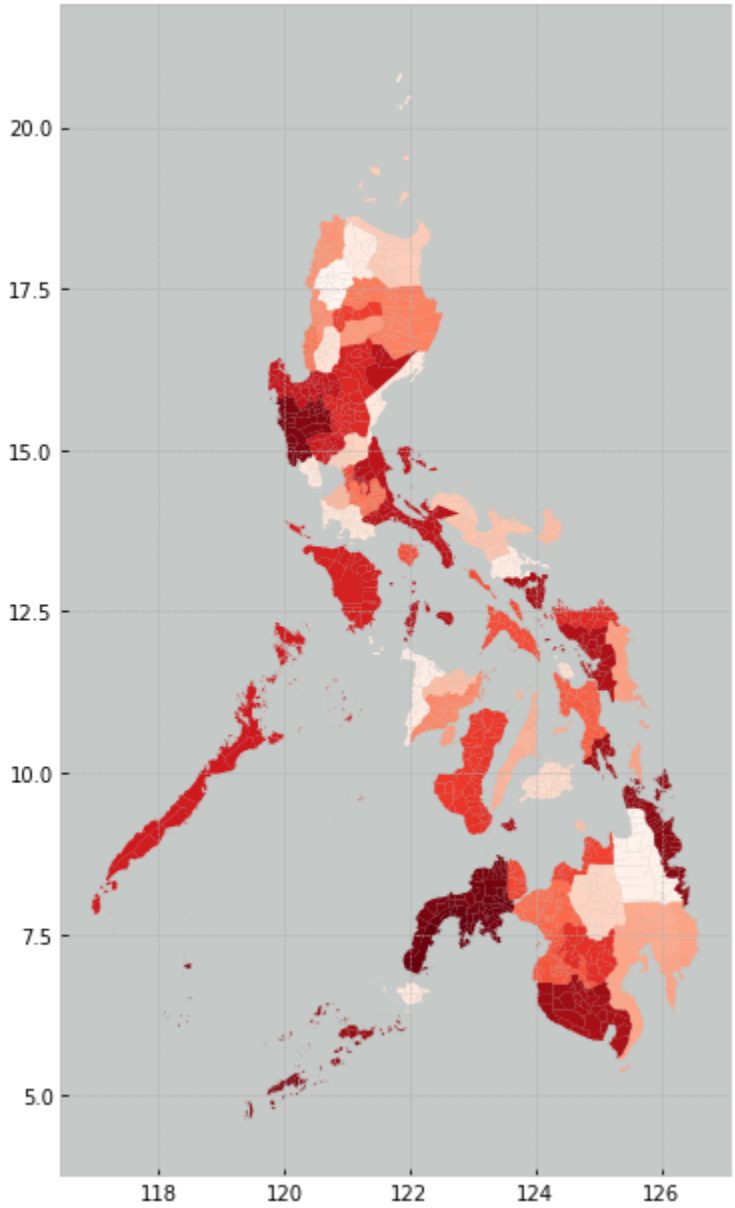
5. Dataset: World Cities Population

Perform the following using the datasets provided.

a. Create at least 2 plots/graphs
b. Describe and interpret the data visualization
c. Link of the codes



The dot map shows the magnitude of the number of cities and municipalities in the Philippines based on the World Cities Population dataset. The map shows that cities and municipalities are smaller or closely next to each other in the region of CALABARZON, NCR, and some parts of Central Luzon. It is also the same case in Western Visayas and Northern Mindanao. On the other hand, the cities and municipalities seem to be larger or far apart from each other in the case of MIMAROPA and some areas in Mindanao.



The choropleth map shows how the number population by cities and municipalities varies across the Philippines. Based on the map, we can see that those in the Zamboanga Peninsula seem to have a higher population as well as in some parts of SOCCSKSARGEN, Central Luzon, Caraga, and Bicol Region. We can also see that

populations in MIMAROPA, Negros Island, and some areas in Luzon are also high. On the other hand, the population in cities and municipalities in Basilan as well as some areas in Western Visayas and Bicol Region and Caraga as well appear to be lower in number.

https://colab.research.google.com/drive/1_1oLVhp4MQ-LBuMGPKleDr7i8lk53N8y?usp=sharing