The objective of this dashboard is to understand sales trends for one of the leading

pharmaceutical company.

The client would like to come see a dynamic dashboard with different KPI's at different

levels (National, Region & Territory etc). Create the below charts as these would help us

explore the past data in a better manner and give a good picture of the progress and

failures. This in turn would catalyse the decision-making process, making it easier, simpler and accurate.

ABOUT DATA:

The data attached is a two-year sales data of a pharma company which talks about

sales in 2015 and 2016 across various regions and time frames.

Account Id : Customer ID

Account Name : Customer Name

Tier : Customer Segment

Sales 2015 : Sales for the year 2015

Sales 2016 : Sales for the year 2015

Units 2015 : No of Units sold for 2015

Units 2016 : No of Units sold for 2016

IMPORTANT NOTE: When answering the below questions, you would require to reshape

the data i.e., convert from wide to long and long to wide (with stack(), unstack() and pivot()) after aggregating it by using groupby().

1. Compare Sales by region for 2016 with 2015 using bar chart

2. What are the contributing factors to the sales for each region in 2016. Visualize it using a Pie Chart.

3. Compare the total sales of 2015 and 2016 with respect to Region and Tiers

4. In East region, which state registered a decline in 2016 as compared to 2015?

5. In all the High tier, which Division saw a decline in number of units sold in 2016 compared to 2015?

6. Create a new column Qtr using numpy.where() or any suitable utility in the imported

dataset. The Quarters are based on months and defined as -

• Jan - Mar : Q1

• Apr - Jun : Q2

• Jul - Sep : Q3

• Oct - Dec : Q4

7. Compare Qtr wise sales in 2015 and 2016 in a bar plot

8. Determine the composition of Qtr wise sales in and 2016 with regards to all the Tiers in a pie chart. (Draw 4 pie charts representing a Quarter for each Tier)