**Case 2: Analysis of a customer net revenue**

Nikita Goel

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# **Dataset observations**

Visualizing the following information for all the years (2015, 2016, 2017)

* Total revenue for the current year
* New Customer Revenue e.g. new customers not present in previous year only
* Existing Customer Growth. To calculate this, use the Revenue of existing customers for current year –(minus) Revenue of existing customers from the previous year
* Revenue lost from attrition
* Existing Customer Revenue Current Year
* Existing Customer Revenue Prior Year
* Total Customers Current Year
* Total Customers Previous Year
* New Customers
* Lost Customers

Screenshot of the code and output (Figure 1)

A screenshot of a computer

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Figure 1: Code for showing the above asked information

1. For 2015, total revenue and customer count is shown in Figure 2

Text

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Figure 2: Information regarding 2015

1. For 2016,

* Total revenue and existing customer growth is shown in Figure 3 where this information is shown for top 10 customers

Graphical user interface, text

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Figure 3: 2016 revenue information

* For 2016, lost revenue from attrition, existing customer revenue current and prior year is shown below for the top 10 customers (Figure 4)

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Figure 4: For 2016 lost revenue, and revenue in the current and prior year

* For 2016, Total customer count and count as compared with the previous year. Also showing the new and lost customer counts (Figure 5)

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Figure 5: Customer count information for 2016

1. For 2017

* Total revenue and existing customer growth is shown in Figure 6 where this information is shown for top 10 customers

Graphical user interface, text

Description automatically generated

Figure 6: 2017 revenue information

* For 2017, lost revenue from attrition, existing customer revenue current and prior year is shown below for the top 10 customers (Figure 7)

Graphical user interface, text, application

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Figure 7: For 2017 lost revenue, and revenue in the current and prior year

* For 2017, Total customer count and count as compared with the previous year. Also showing the new and lost customer counts (Figure 8)

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Figure 8: Customer count information for 2017

# **Visualizations obtained after analysis**

There are two interesting visualizations observed from the dataset. They were built using Python Bokeh. The overall dashboard is shown in Figure 11. A sample data was taken for a sample of 50 customers for all the years and saved to a csv file (visual\_observation.csv). The visualizations were made referring to that data file. These are shown below:

* It consists of revenue comparison for the existing customers for all the three years (Figure 9). It includes the top 10 existing customers data who were in the company for all the three years. 2015 trend is shown in red, 2016 in blue and 2017 in green.
* This visualization is showing the total customers for the years 2015, 2016 and 2017. (Figure 10).

Chart, line chart

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Figure 9: Revenue comparison of top 10 existing customer from 2015-2017

Chart

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Figure 10: Total customers from 2015-2017

Chart

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Figure 11: Static Dashboard of the visualizations