FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING

Department of Computer Engineering

Course, Subject & Experiment Details

Practical No:	4
Title:	Exploratory Data Analysis and visualization of Social Media Data for business.
Name of the Student:	Warren Fernandes
Roll No:	8940
Date of Performance:	21/02/2023
Date of Submission:	28/02/2023

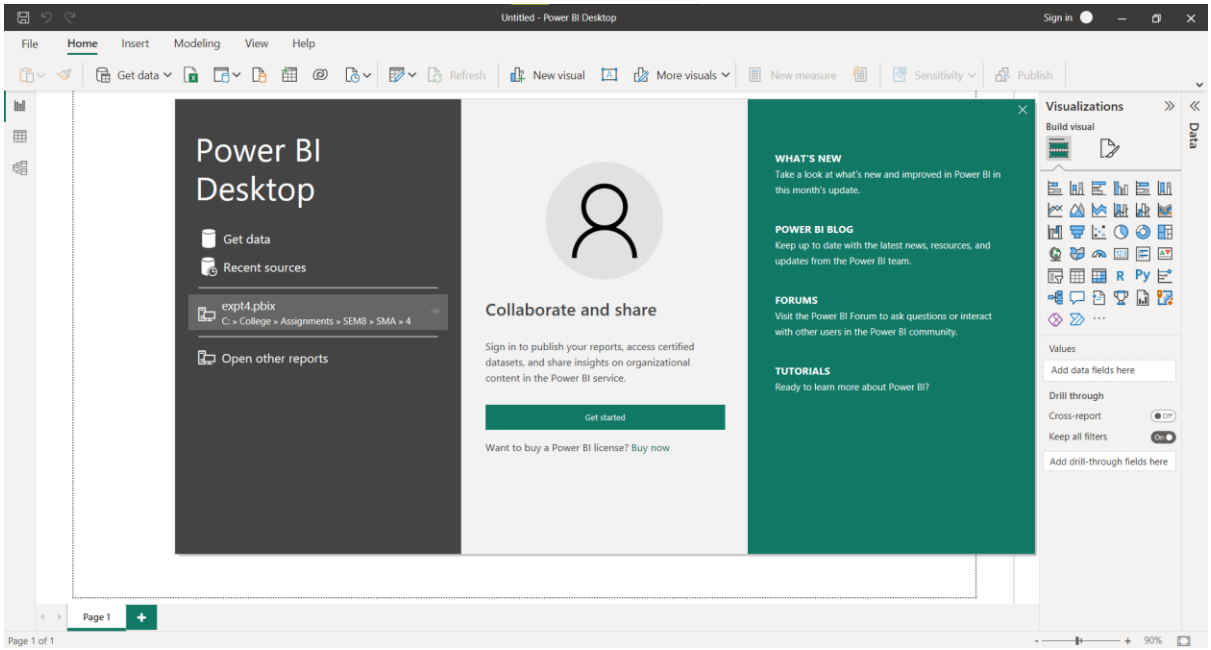
Evaluation:

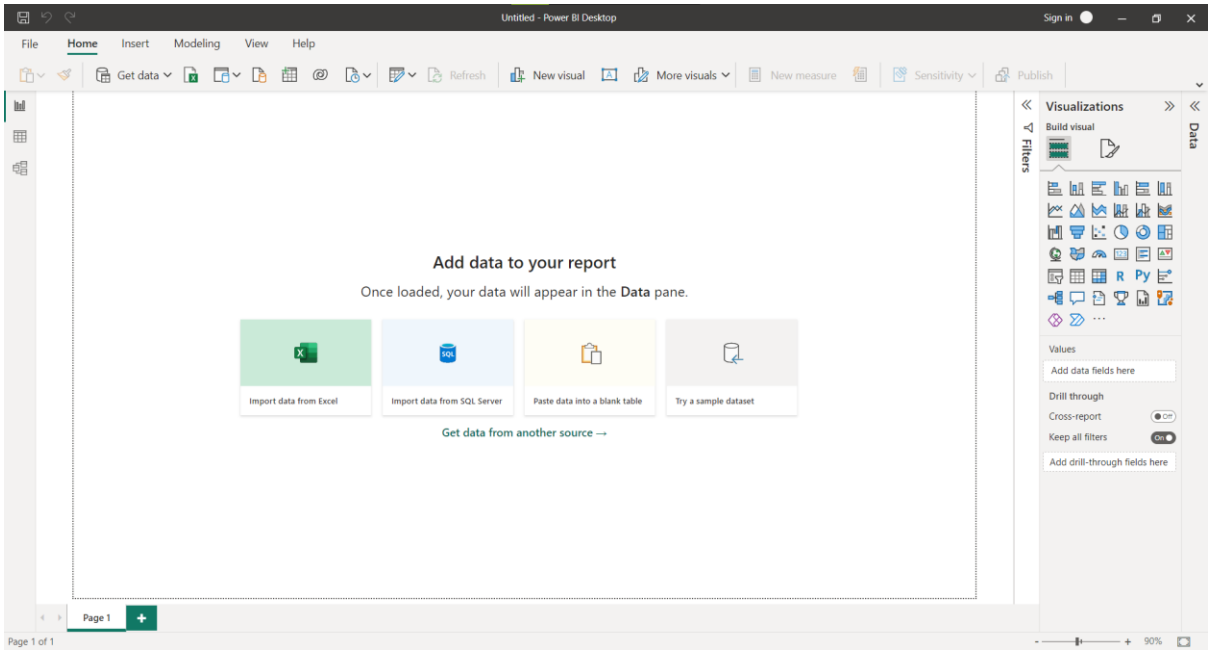
Sr. No.	Rubric	Grade
1	On time submission/completion (2)	
2	Preparedness (2)	
3	Skill (4)	
4	Output (2)	

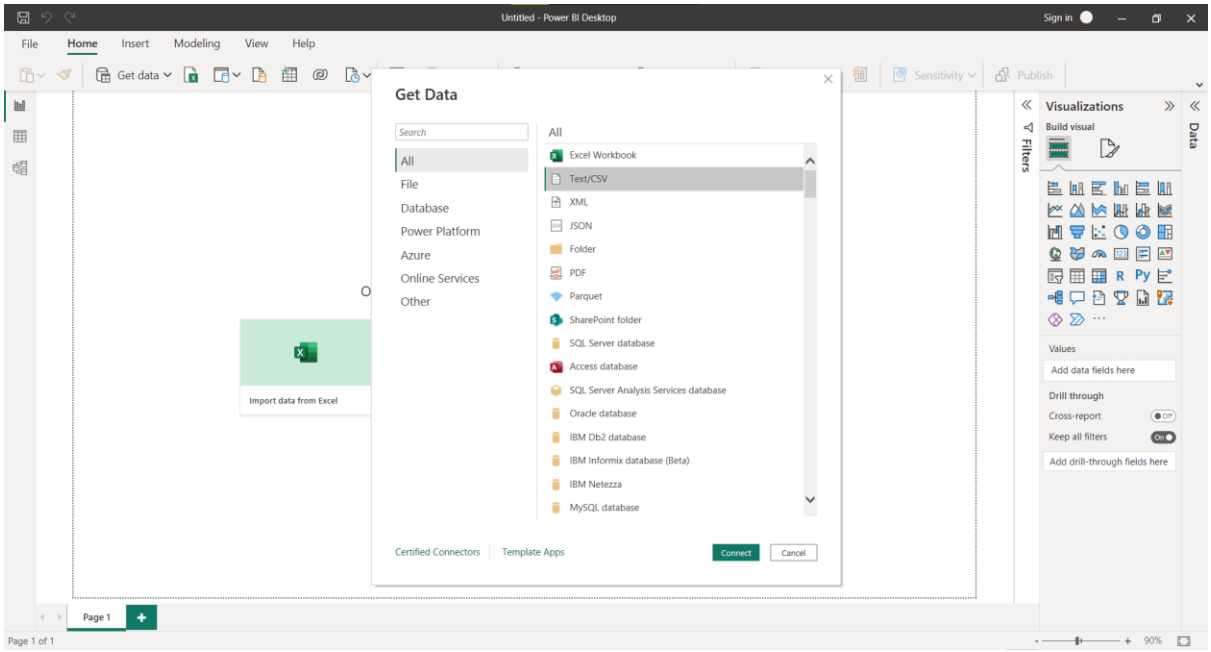
Signature of the Teacher

Getting started with Power BI

To get started with Desktop Power BI for excel, CSV files will be imported. First, we will click get data, and from that menu, we will select the CSV file and then load the data. In these Fig. we have uploaded data from Sales of LoveBonito.







dataset.csv

File Origin: 1252: Western European (Windows)

Delimiter: Comma

Data Type Detection: Based on first 200 rows

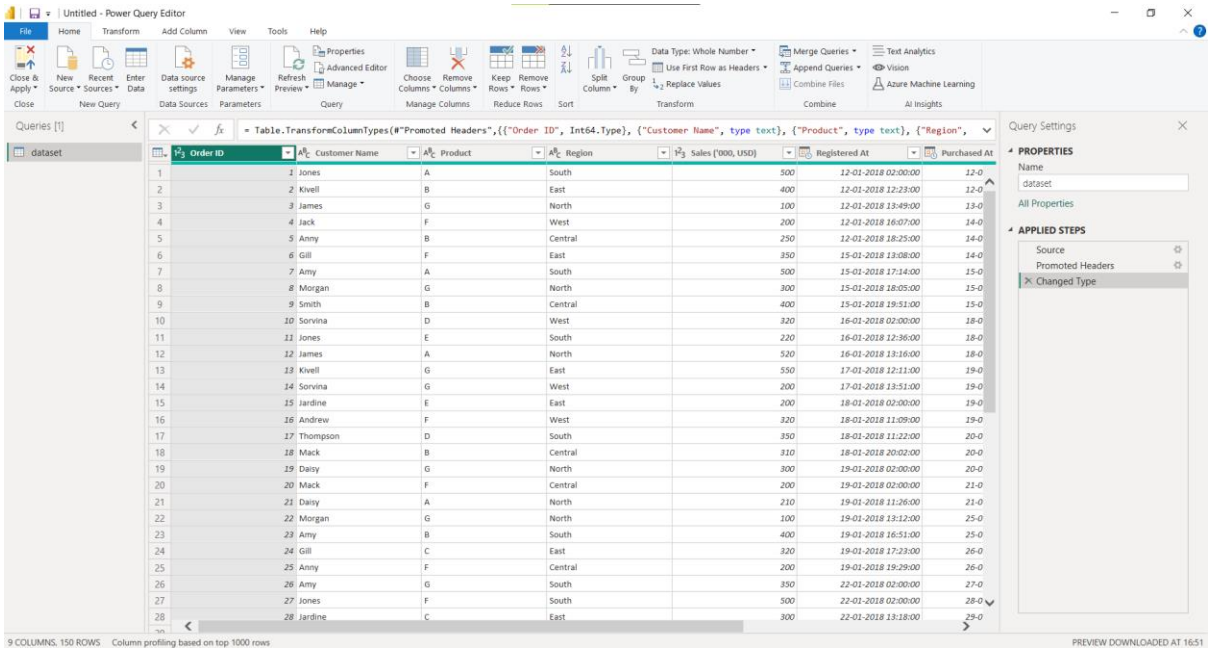
Order ID	Customer Name	Product	Region	Sales ('000, USD)	Registered At	Purchased At	Refunded	Origin
1	Jones	A	South	500	12-01-2018 02:00:00	12-06-2018 18:59:00	FALSE	referral
2	Kivell	B	East	400	12-01-2018 12:23:00	12-06-2018 19:54:00	FALSE	display
3	James	G	North	100	12-01-2018 13:49:00	13-06-2018 16:37:00	FALSE	social
4	Jack	F	West	200	12-01-2018 16:07:00	14-06-2018 14:30:00	FALSE	social
5	Anny	B	Central	250	12-01-2018 18:25:00	14-06-2018 15:43:00	TRUE	other
6	Gill	F	East	350	15-01-2018 13:08:00	14-06-2018 18:51:00	FALSE	paid_search
7	Amy	A	South	500	15-01-2018 17:14:00	15-06-2018 14:04:00	FALSE	paid_search
8	Morgan	G	North	300	15-01-2018 18:05:00	15-06-2018 19:49:00	FALSE	unknown
9	Smith	B	Central	400	15-01-2018 19:51:00	15-06-2018 21:32:00	FALSE	social
10	Sorvina	D	West	320	16-01-2018 02:00:00	18-06-2018 12:46:00	FALSE	unknown
11	Jones	E	South	220	16-01-2018 12:36:00	18-06-2018 13:51:00	FALSE	display
12	James	A	North	520	16-01-2018 13:16:00	18-06-2018 13:58:00	FALSE	social
13	Kivell	G	East	550	17-01-2018 12:11:00	19-06-2018 12:36:00	FALSE	social
14	Sorvina	G	West	200	17-01-2018 13:51:00	19-06-2018 14:08:00	FALSE	paid_search
15	Jardine	E	East	200	18-01-2018 02:00:00	19-06-2018 19:54:00	FALSE	email
16	Andrew	F	West	320	18-01-2018 11:09:00	19-06-2018 21:04:00	FALSE	email
17	Thompson	D	South	350	18-01-2018 11:22:00	20-06-2018 12:24:00	FALSE	social
18	Mack	B	Central	310	18-01-2018 20:02:00	20-06-2018 18:31:00	FALSE	direct_traffic
19	Daisy	G	North	300	19-01-2018 02:00:00	20-06-2018 18:32:00	FALSE	email
20	Mack	F	Central	200	19-01-2018 02:00:00	21-06-2018 12:21:00	TRUE	paid_search

The data in the preview has been truncated due to size limits.

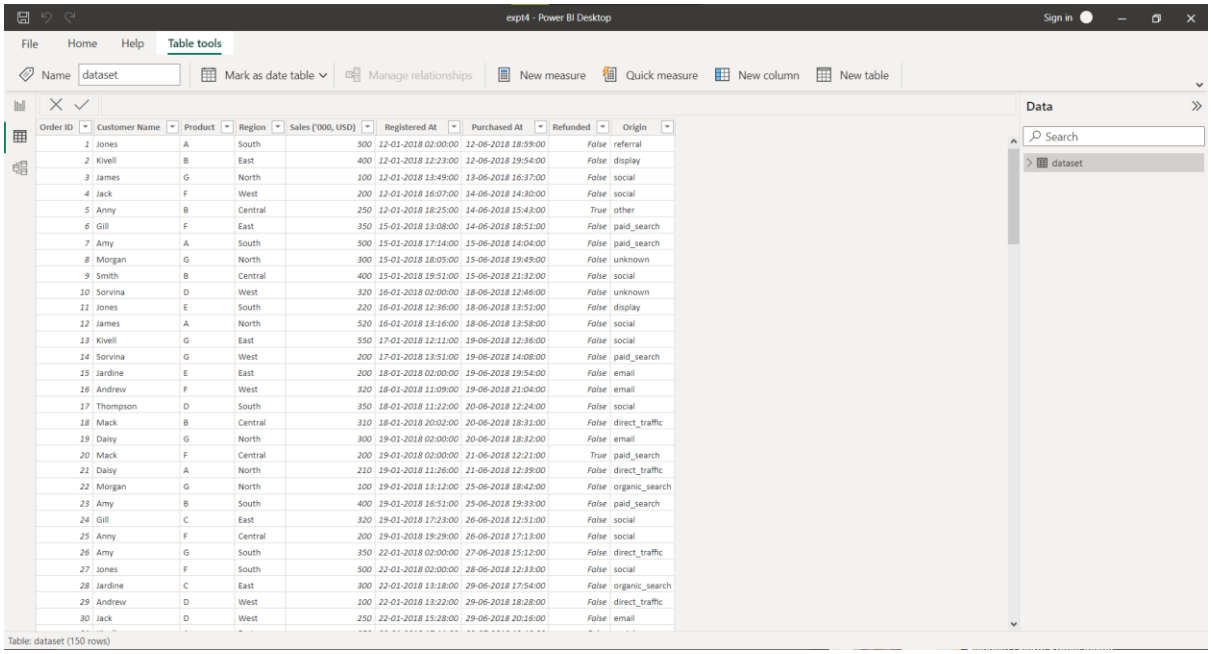
Extract Table Using Examples | Load | Transform Data | Cancel

Transforming Data

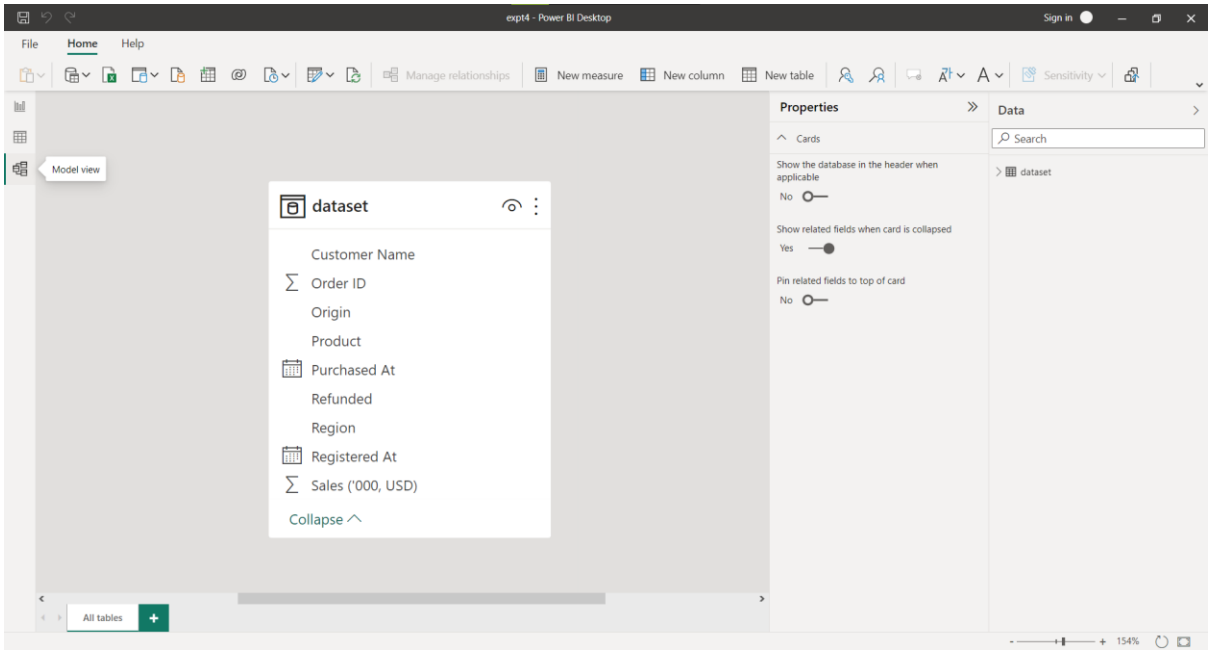
Data needs to be formatted according to the need of columns. There are many processing errors which leads to blank rows.



Data View

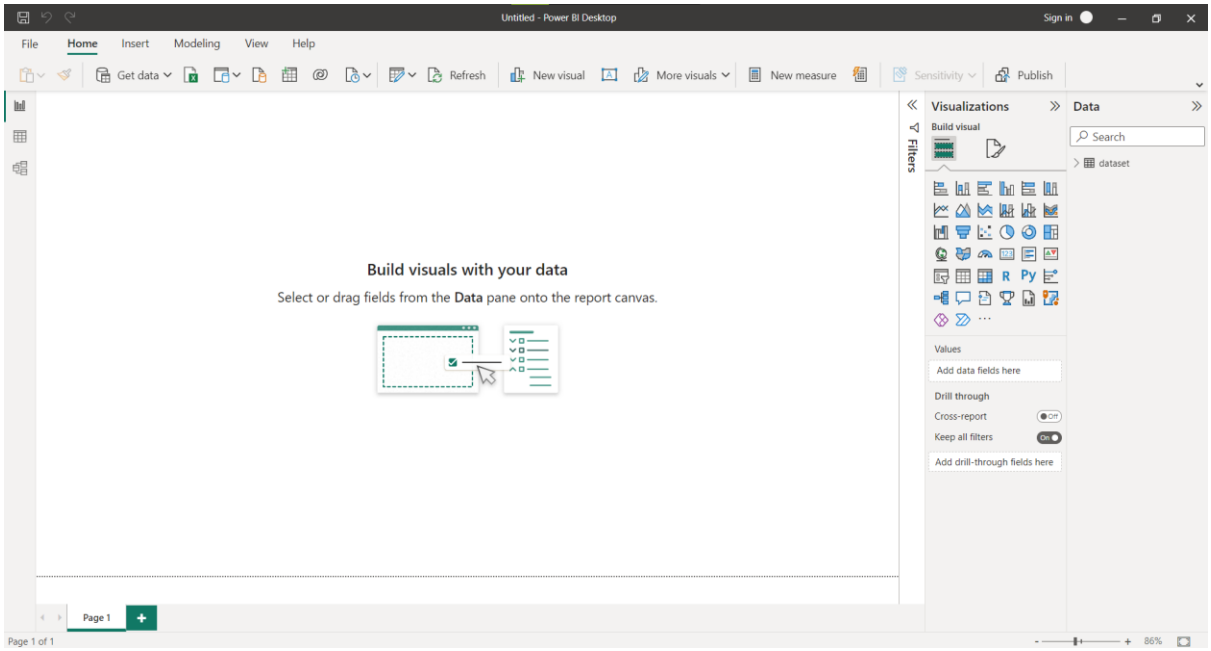


Model View



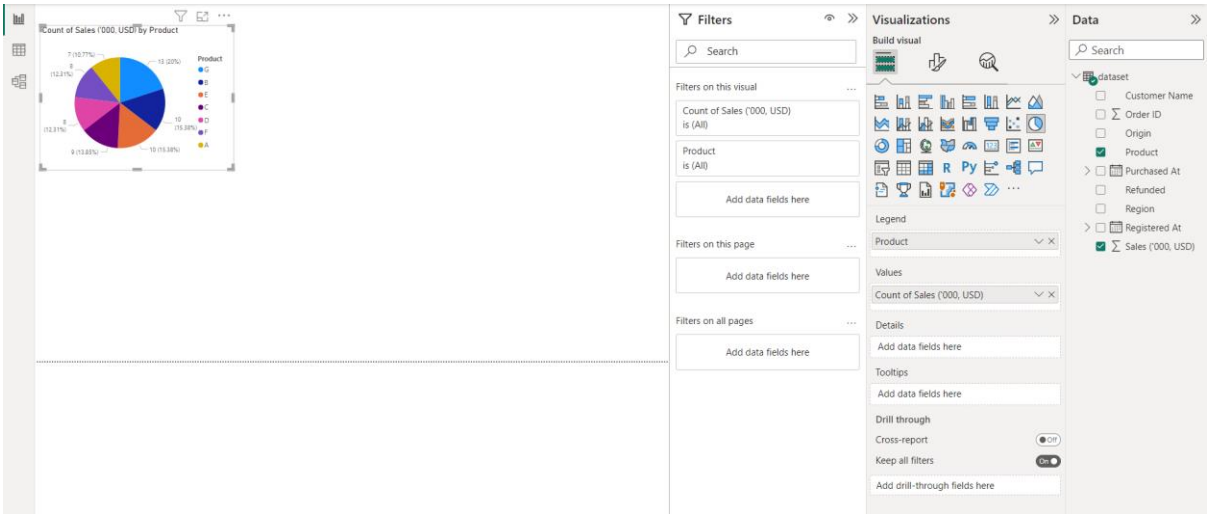
Build Reports

Build Reports
The top of the screen displays common report and visualization functions.
The middle part is where visualizations are produced and placed.
The bottom of the page tab section allows you to pick or add report pages.
You can filter data visualizations in the Filters window.



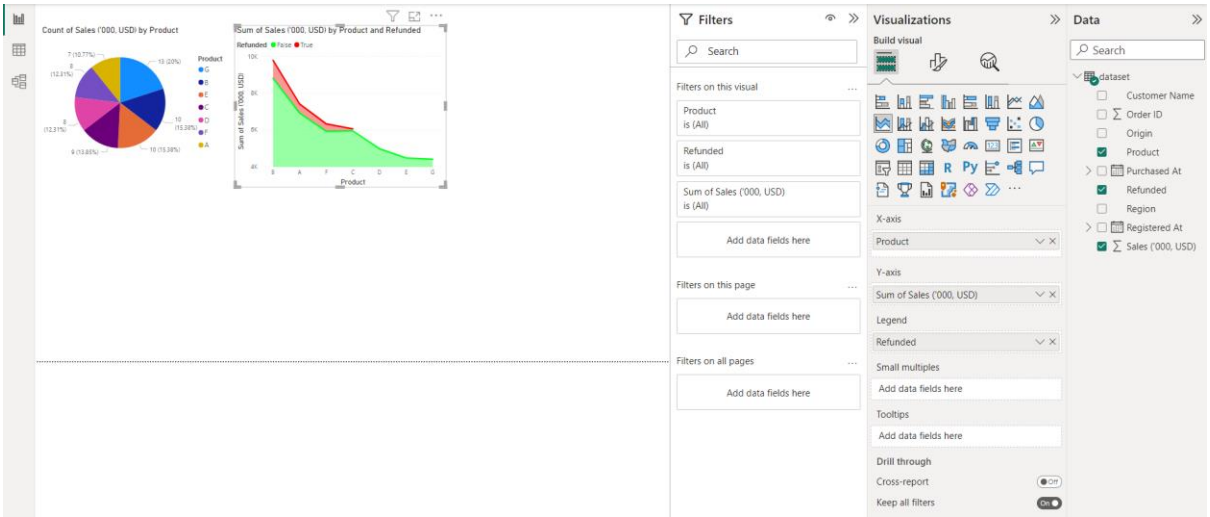
Pie Chart

A pie chart is a circular statistical graphic, which is divided into slices to illustrate numerical proportion. In a pie chart, the arc length of each slice is proportional to the quantity it represents.



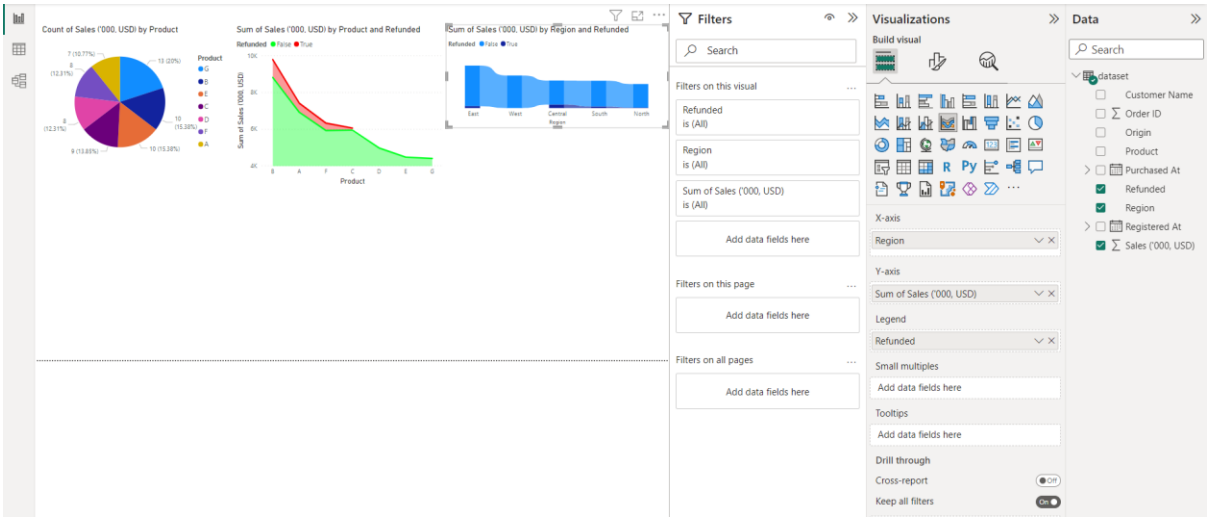
Stacked Area Chart

A stacked area chart is a type of graph that displays the evolution of a variable over time. It is similar to a regular area chart, but with multiple variables stacked on top of each other. Each variable is represented by a colored area, and the areas are stacked on top of each other to show the total contribution of all the variables at any given point in time.



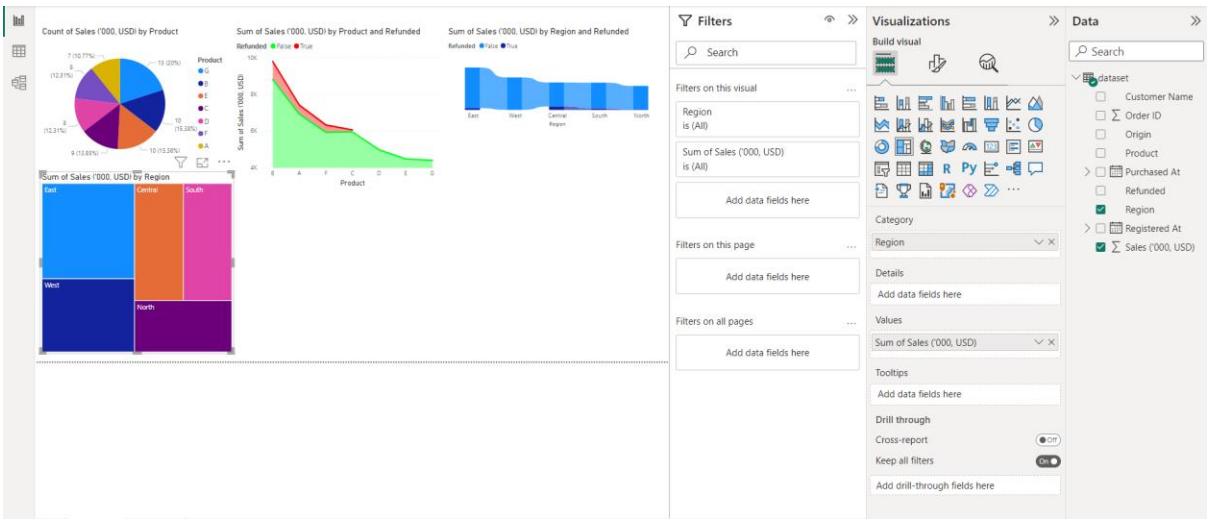
Ribbon Chart

Ribbon chart is used to visualize the data and quickly identify which data category has the highest rank (largest value). Ribbon charts are effective at showing rank change, with the highest range (value) always displayed on top for each time period.



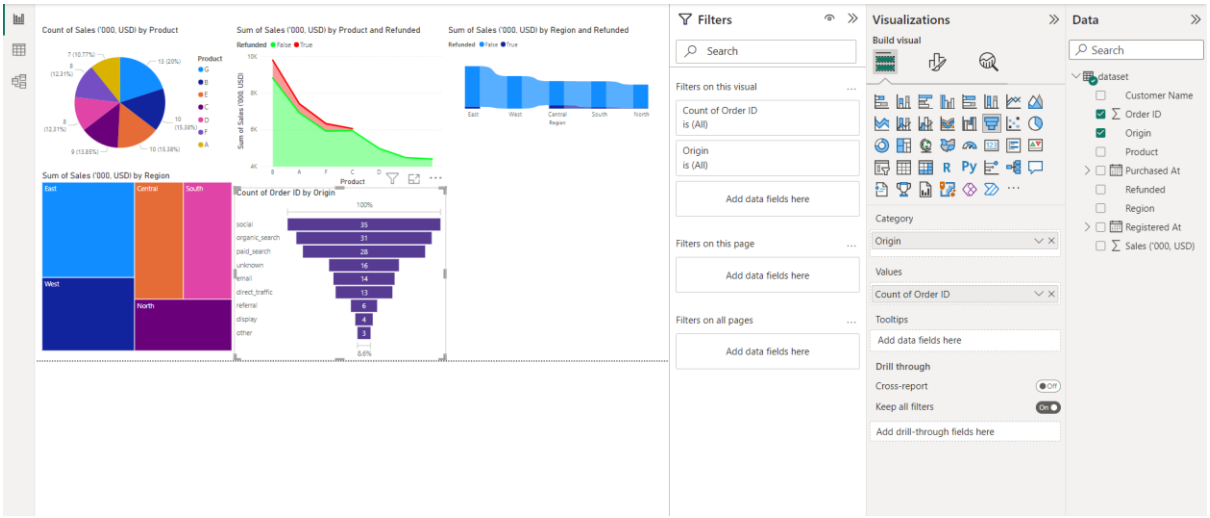
Tree Map

A tree map is used to show the composition of a whole when there are many components. The arrangement is typically (but not always) a rectangular area divided up into smaller rectangles to represent sub-categories. The size of these sub-category rectangles represents a quantitative value.



Funnel

Funnel charts show values across multiple stages in a process. For example, you could use a funnel chart to show the number of sales prospects at each stage in a sales pipeline. Typically, the values decrease gradually, allowing the bars to resemble a funnel.



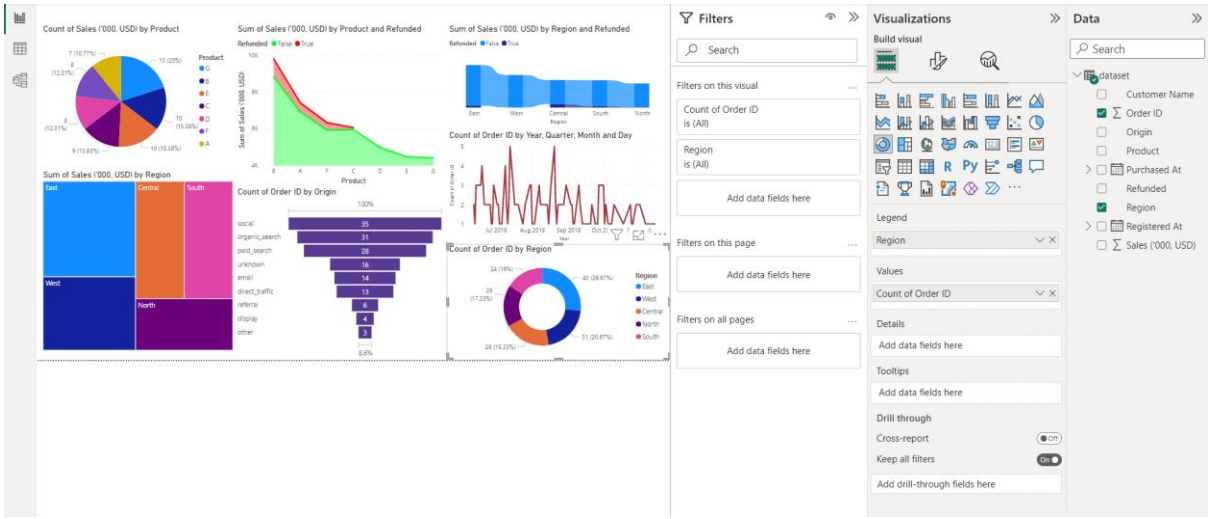
Line Chart

The line chart is a simple, two-dimensional chart with an X and Y axis, each point representing a single value. The data points are joined by a line to depict a trend, usually over time.

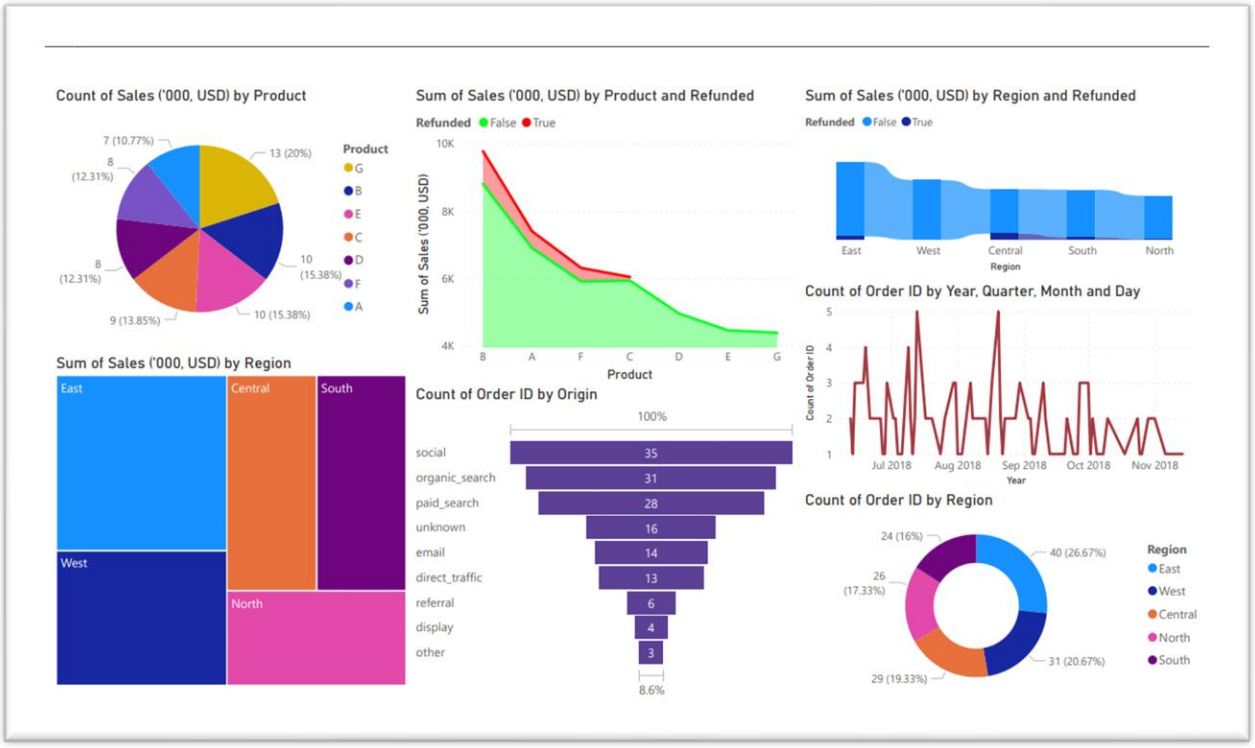
Donut Chart

A donut chart, in its simplest form, is a pie chart with its center cut out to look like a donut. At first glance, this may not seem to serve a much greater

purpose than to create aesthetic variety. However, a donut chart helps avoid confusion around the area parameter that often trips people up in a pie chart.



Dashboard



Conclusion:

In conclusion, the practical application of exploratory data analysis and visualization of social media data for business has significant potential to provide valuable insights and opportunities for businesses to improve their marketing and sales strategies. By using various visualization techniques and tools to analyze and understand social media data, businesses can identify patterns and trends in customer behavior, preferences, and sentiment towards their brand, products, or services.