REPORT

The report includes the explanation of the dashboards built on the Twitter Data.

Training Project-Dashboard : Twitter Data Analytics

The dashboard includes a variety of visualization graphs where each presents its own data and functionality.

1.Card: The visual card is used to represent a single data in which I chose to display the count of the Media Views. It displays the count of the media views of a particular month or including all based on the choice made by the user.

2.Guage: The Guage visualization is used for displaying progress towards a goal, KPI (Key Performance Indicator) tracking, or measuring against a goal. In the dashboard this visual is used for representing impressions, Replies, Hashtags according to a constraint mentioned by the user.

3.Line Graph: Line Graph is used for displaying the data based on the data placed on X and Y-axis. The graph line directly depends on the data that is placed and it changes accordingly for different constraints (may be selecting from one month to another). In the dashboard it used to display the data i.e, sum of replies by week. On X-axis Week data is being placed and on the Y-axis sum of replies is being placed.

4.Clustered Bar Chart: Clustered Bar Chart allows to compare multiple categories side by side. It is useful for showing categorical data across multiple series. In the dashboard it is used for displaying Sum of retweets and replies by week the weeks data is being placed on y-axis and the data in the bars is the sum of retweets and replies. The columns are highlighted with different colors as they represent different columns or data. The size of the columns change based on the requirements specified by the user. It is the inverse of the regular graph i.e, the data on the x-axis in the regular acts as the y-axis in this graph and same with y-axis where it acts as x-axis in clustered bar graph.

5.Clsutered Column Chart: The Clustered Column Chart is used for comparing multiple categories of data across different series. It displays data as vertical bars grouped by category, making it easy to analyze patterns and compare values side by side. In this dashboard it used to display the data sum of URL clicks by week.

The data placed on X and Y-axis are week and sum of URL clicks. The data column changes based on the choice or change in the data.

6.Stacked Column Chart: A Stacked Column Chart used to visualize the data when we want to show the total value of a category while also breaking it down into subcategories. Each column represents a total, and the segments within the column represents parts of that total. In the dashboard it is used to visualize the data Sum of Replies and Retweets by Week. The data that is being placed on X and Y-axis are Week and Sum of Replies and Retweets and both the categories are represented using different colors in a single column where they can be identified by the indication in the legend present on the graph and it changes based on the constraints specified by the user.

7.Pie Chart: The Pie Chart used to visualize the data where the various types of data are being presented as pie (i.e, a single portion of each in a entire circle) with different colors for each categories and it makes it easy to identified the different data quickly. In the dashboard it is used to display various kind of data i.e, sum of links, media engagement and views in one pie chart and the other pie chart is used to display the data i.e, count of URL clicks, user profile, retweets and quarter. We can also make the change of displaying data in percentage or count and place them inside outside the chart from the settings of the visual.

TASKS

Task-1: Create a dashboard to display the average engagement rate and total impressions for tweets posted between '01- 01-2020' and '30-06-2020'. Filter out tweets that received fewer than 100 impressions and like should be 0 and this graph should work only between 3PM IST to 5 PM IST apart from that time we should not show this graph in dashboard itself.

Explanation:

To display the above data, I used a Line graph visualization where the date is being on x-axis and count of impressions, average engagement rate and show graphs of both are being placed on y-axis. The data count of impressions and average engagement rate are being displayed with different colors. The filters are applied to display data which has zero likes, impressions fewer than 100 and the range is being is used to adjust the dates and the show graph method is being used to display the graph in a particular time period by using a measure by specifying the constraints.

Task-2: Build a chart to identify the top 10 tweets by the sum of retweets and likes. Filter out tweets posted on weekends and show the user profile that posted each tweet and this graph should work only between 3PM IST to 5 PM IST apart from that time we should not show this graph in dashboard itself and the tweet impression should be even number and tweet date should be odd number as well as tweet word count be below 30.

Explanation:

To display the above data, I used a Line graph visualization where the Id is being on x-axis and sum of retweets and likes placed on y-axis. The filters are applied to display data where the tweet data should be odd and impressions should be even and the number of words in a tweet should be less than 30 and the sum of top 10 tweets is also filtered using the filters and these constraints are extracted by using Dax query in power query editor to get the satisfied constraints and then placed in the filters in the value fields to apply them accordingly and show graph method is used to display the graph in the dashboard in that specific timings by mentioning the constraints.

Task-3: Plot a scatter chart to analyse the relationship between media engagements and media views for tweets that received more than 10 replies. Highlight tweets with an engagement rate above 5% and this graph should work only between 6PM IST to 11 PM IST apart from that time we should not show this graph in dashboard itself and the tweet date should be odd number as well as tweet word count be above 50.

Explanation:

To display the above data, I used a scatter chart visualization where the data is represented in the form of dots scattered all the way according to the respective data. The data that is being placed on the axes i.e, x-axis count of media views and on y-axis count of media engagements. The filters that are applied are engagement rate is greater than 5%, the tweet date must be odd, replies for the tweets greater than 10, wordcount is greater than 50. The measure show graph is used to display data during a specific duration mentioned according to the constraints while querying and it is set to 1 which makes it true and the graph appears only during that time otherwise it disappears from the dashboard itself.

Task-4: Create a clustered bar chart that breaks down the sum of URL clicks, user profile clicks, and hashtag clicks by tweet category (e.g., tweets with media, tweets with links, tweets with hashtags). Only include tweets that have at least one of these interaction types and this graph should work only between 3PM IST to 5 PM IST apart from that time we should not show this graph in dashboard itself and the tweet date should be even number as well as tweet word count be above 40.

Explanation:

To display the above content, I used a clustered bar chart in which the data places on the axes i.e, x-axis is sum of URL clicks, user profile clicks, hashtag clicks and on y-axis the tweet data. The graph is visualized based on the data and the filters that are used. The filters that are applied on this visualization are the tweet date should be even, word count should be greater than 40, the interaction between the columns specified. The show graph measure is used to enable the graph to be displayed during the specific time it is set to 1 which means true, otherwise it automatically disappears from the dashboard itself expect for the time mentioned.

Task-5: Analyse tweets to show a comparison of the engagement rate for tweets with app opens versus tweets without app opens. Include only tweets posted between 9 AM and 5 PM on weekdays and this graph should work only between 12PM IST to 6PM IST and 7 AM to 11AM apart from that time we should not show this graph in dashboard itself and the tweet impression should be even number and tweet date should be odd number as well as tweet character count should be above 30 and need to remove tweet word which has letter 'D'.

Explanation:

To display the above data, I used a clustered bar chart where the data that is being placed on x-axis is engagement rate with and without app opens and on y-axis is the column that is being formed through transforming data in power query data i.e, appopens and the filters that are being added are where the character count is greater than 30 and the data without the letter D in the tweet data, the impressions must be even, the day must be a weekday, the tweet date should be odd and the measure show graph is used to display the data in that particular

period of time mentioned in the query while creating the measure and when it is set to 1 the graph disappears from the dashboard and displayed during the mentioned time constraints.

Task-6: Create a dual-axis chart that shows the number of media views and media engagements by the day of the week for the last quarter. Highlight days with significant spikes in media interactions. this graph should work only between 3PM IST to 5 PM IST and 7 AM to 11AM apart from that time we should not show this graph in dashboard itself and the tweet impression should be even number and tweet date should be odd number as well as tweet character count should be above 30 and need to remove tweet word which has letter 'H'.

Explanation:

To visualize the above data I, used a dual-axis chart allows you to plot two different measures on the same visualization with two separate Y-axes one on the left and the other on the right. It is used when comparing datasets with different scales or units. The data that is being placed on the x-axis is Day of the week and on y-axes total media views and total media engagements the column bars in the graph visualize the total media views and the line on the graph visualizes the total media engagements. The filters that are applied to meet the constraints are the character count should be greater than 30, should not contain the alphabet H, the impression should be even, the tweet date should be odd, the week of the last quarter and the show graph measure is used to display the graph in the dashboard according to the constraints mentioned.

Task-7: Create a line chart showing the trend of the average engagement rate over each month of the year. Separate the lines for tweets with media content and those without and this graph should work only between 3PM IST to 5 PM IST and 7 AM to 11AM apart from that time we should not show this graph in dashboard itself and the tweet engagement should be even number and tweet date should be odd number as well as tweet character count should be above 20 and need to remove tweet word which has letter 'C'.

Explanation:

To visualize the above data,I used a line chart in which the data that is placed on x-axis is month and on the y-axis the average engagement rate with media and

without media. The separate lines for tweets with media content is done by placing the media column in the small multiples field where it splits the graph in to three categories i.e, blank, with media and without media. The filters that are applied on this graph are it should not contain the character C, the character count should be greater than 20 , the engagement should be even, the tweet date must be odd and the measure show chart is used to display the graph at particular intervals of time that are specified using querying and when it is set to 1 it reveals or displays the graph only during those timings otherwise it disappears from the dashboard itself.