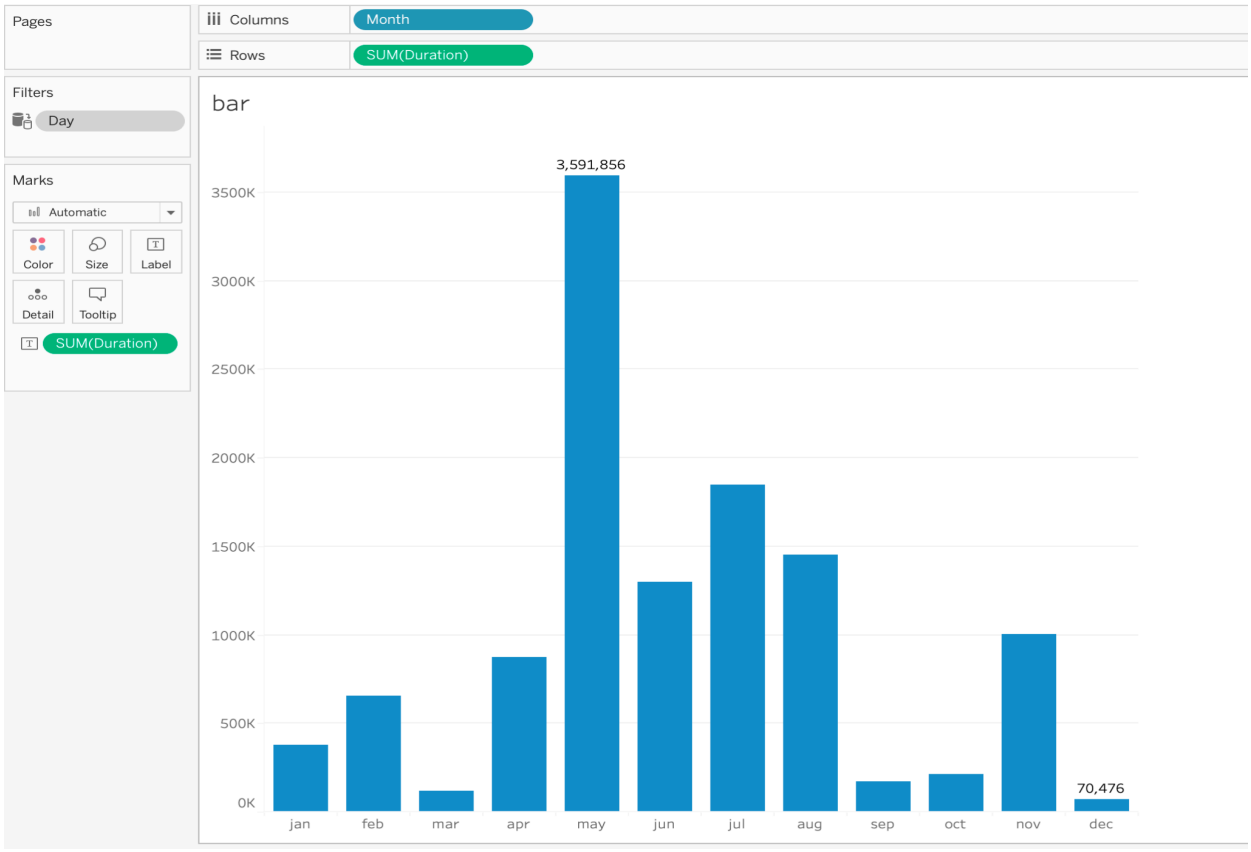
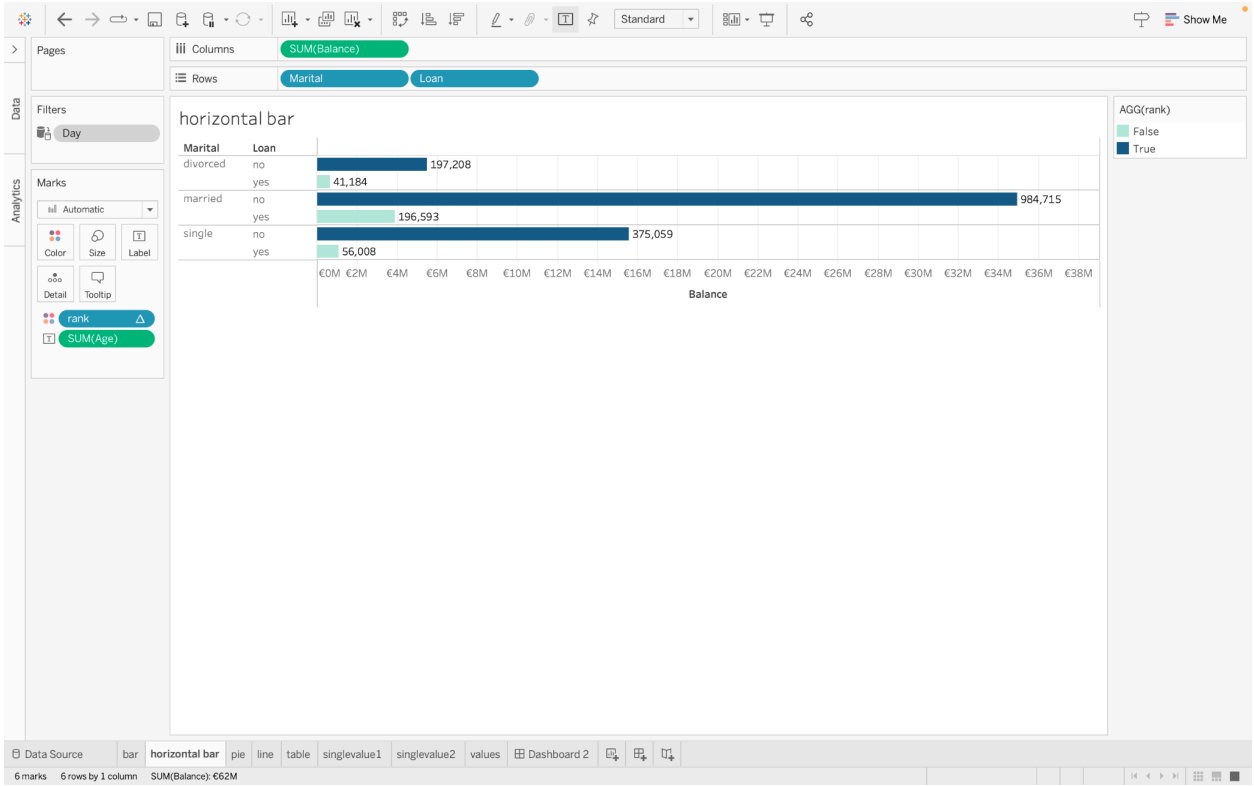
Storytelling thru Data

Sheet 1: Bar Graph



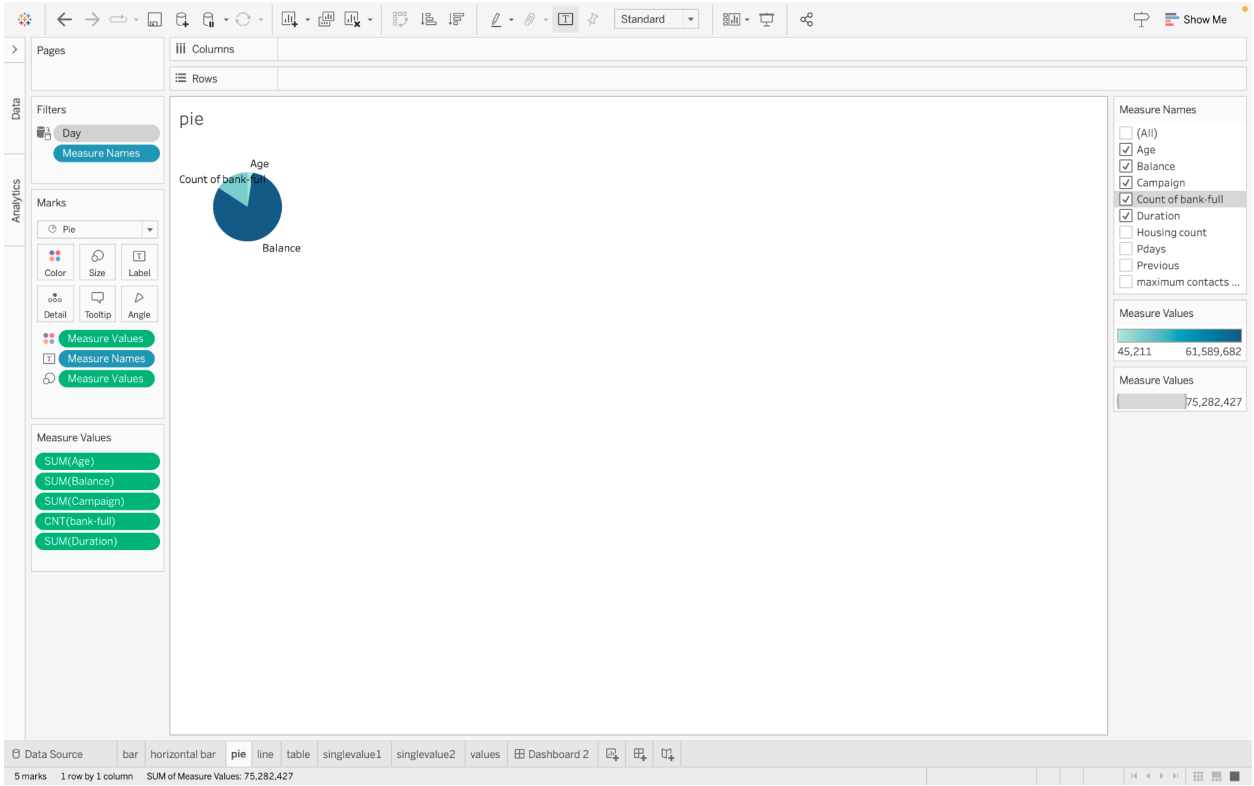
- In this bar graph, we present the relationship between the last contact duration, measured in seconds, and the months during which these contacts occurred.
- By analyzing the visual, bank's representatives can identify patterns, trends, and potential areas of improvement in their interactions with clients.
- Here I made the minimum and maximum of the measure values i.e sum of duration where maximum is in the month of may (3,591,856) and the minimum is in the month of december (70,476).
- The Gestalt principles that I used are :
    - Proximity: The bars for each month are placed close together to highlight their association and facilitate easy comparison.
    - Similarity: All bars are of the same color, shape, and size, making it easy for viewers to recognize them as part of the same data set.

Sheet 2:Horizontal bar graph



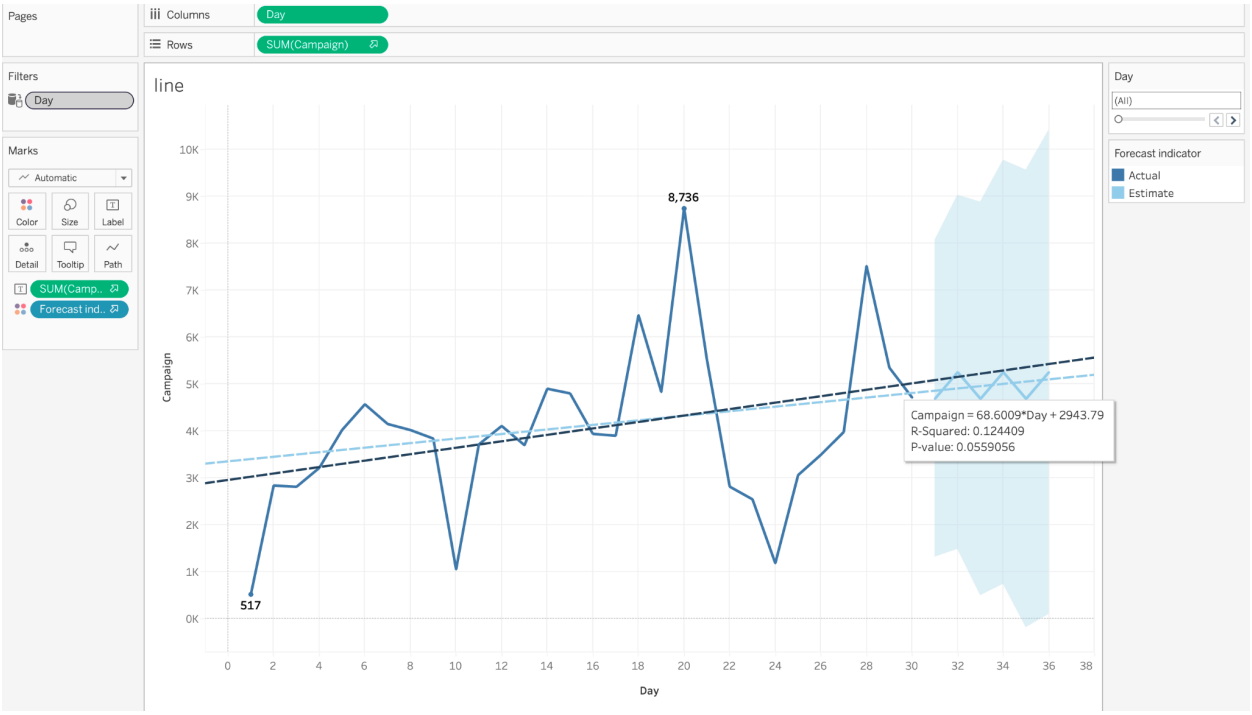
- In this horizontal bar graph, we present the average yearly balance in euros for different marital status and whether the clients have taken a loan or not.
- This graph provides a clear comparison of sum of balances across various client segments, enabling us to identify trends and make data-driven decisions.
- Here, for this graph I made a calculation field called rank : RANK(sum([Balance]))<=1
- By using this calculation field we can grab the highest values for respective status.
- The Gestalt principles that I used are :
    - Proximity: The horizontal bars are grouped closely together, making it easy to discern the average balance for each marital and loan status combination.
    - Closure: Each horizontal bar forms a complete entity representing the average balance for a specific segment, making it easy for viewers to interpret the data.

Sheet 3: Pie chart



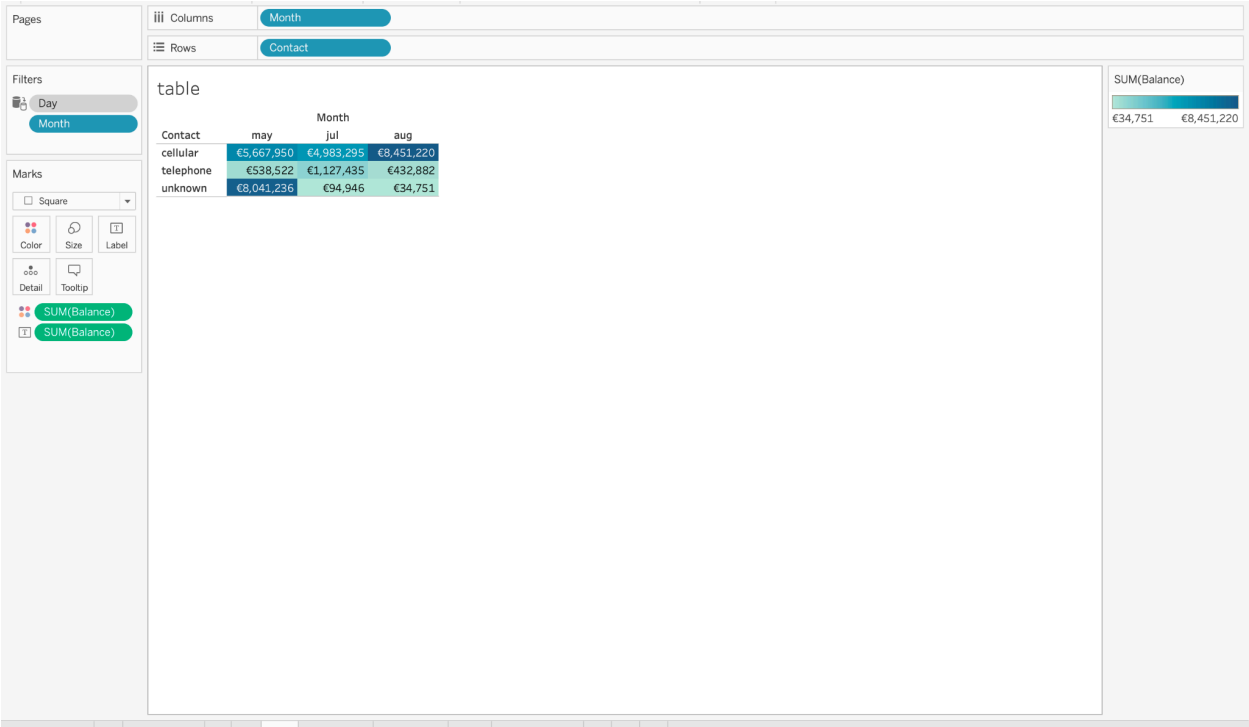
- In this pie chart, represent a comprehensive overview of various measuring values, allowing you to grasp the distribution and proportions of each component at a glance.
- This visually engaging pie chart provides valuable insights that will aid in understanding the relative significance of different measuring values in our dataset.
- Each slice corresponds to a specific measuring value, and its size represents the proportion of that value relative to the total sum of all measuring values.
- On hover, we can see the values of the specific category.
- We have the checkbox where you can enable the specific category and visualize the graph.
- The Gestalt principles that I used are :
    - Similarity: Each slice is color-coded differently, enabling viewers to easily distinguish between different measuring values.
    - Closure: The circular shape of the chart encourages viewers to perceive it as a whole, emphasizing the sum of all measuring values.
    - Continuity: The slices collectively form a continuous circle, helping viewers perceive the proportions relative to the whole.

Sheet 4:Line graph



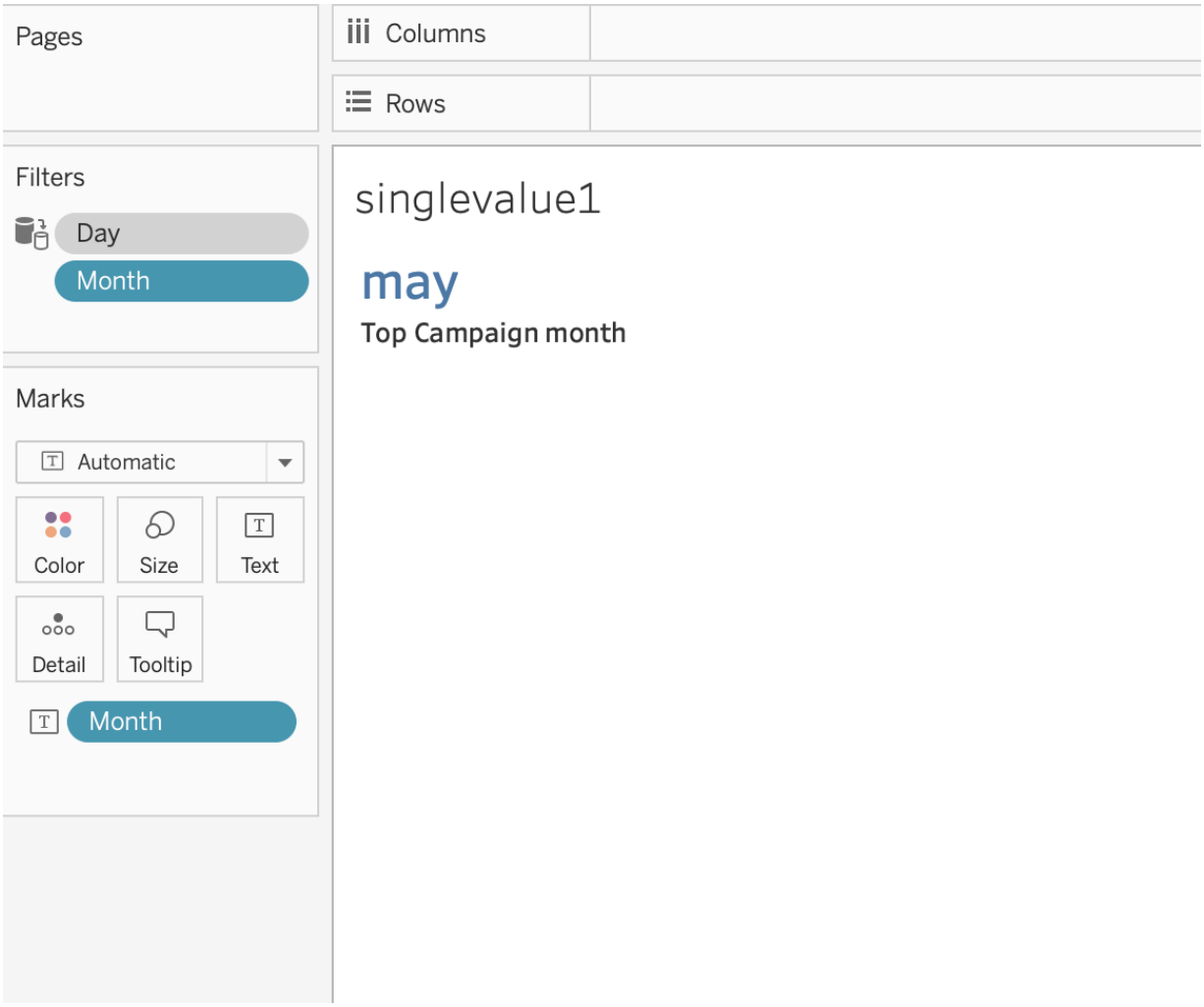
- The line graph shows the daily performance of our campaign, represented by the number of contacts made with each client.
- The X-axis displays the days, and the Y-axis represents the cumulative sum of campaign contacts.
- Each point on the line corresponds to a specific day, indicating the total number of contacts made with clients up to that date.
- The slider is to adjust the days like starting and ending days.
- Here, we made a forecast from the previous trends.
- Using the filter on the sum(campaign) we get the highest and lowest campaigns. Highest campaign is on the day 20 i.e 8,736 and minimum took place on the starting day 1 with 512.
- The Gestalt principles that I used are :
    - Proximity: These points on the line are placed close together, connecting the data sequentially and highlighting the campaign's daily progress.
    - Continuity: The line is continuous, showing the temporal nature of the data and the campaign's ongoing performance over time.

Sheet 5: Table



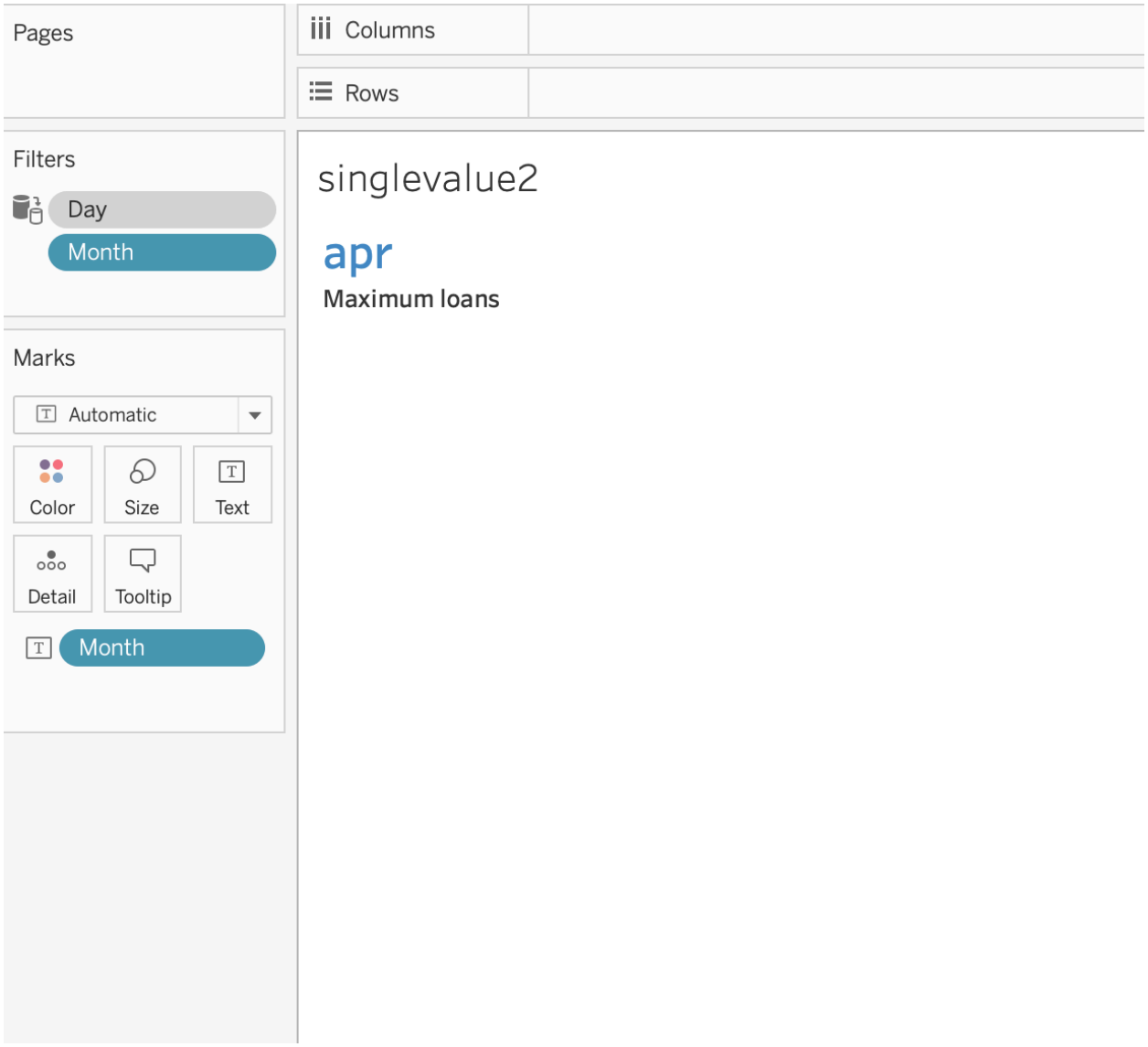
- The data table showcases the breakdown of contact communication types across the top 3 months.
- The rows represent the different contact communication categories ("unknown," "telephone," and "cellular"), while the columns display the months with the highest contact frequencies.
- Each cell in the table contains the total number of contacts made with clients of a specific communication type in a particular month.
- In the filters section drag and drop the month and in the top -> by fields we can select 3 by balance, by applying this the table is created respectively with contact type and its sum of balance.
- The Gestalt principles that I used are :
    - Proximity: The cells within each row are grouped together, highlighting the relationship between communication types and their corresponding balances in the top 3 months.
    - Similarity: The consistent format of the table enhances readability, ensuring that viewers can quickly recognize patterns and draw comparisons.

Sheet 6: Single value visualization



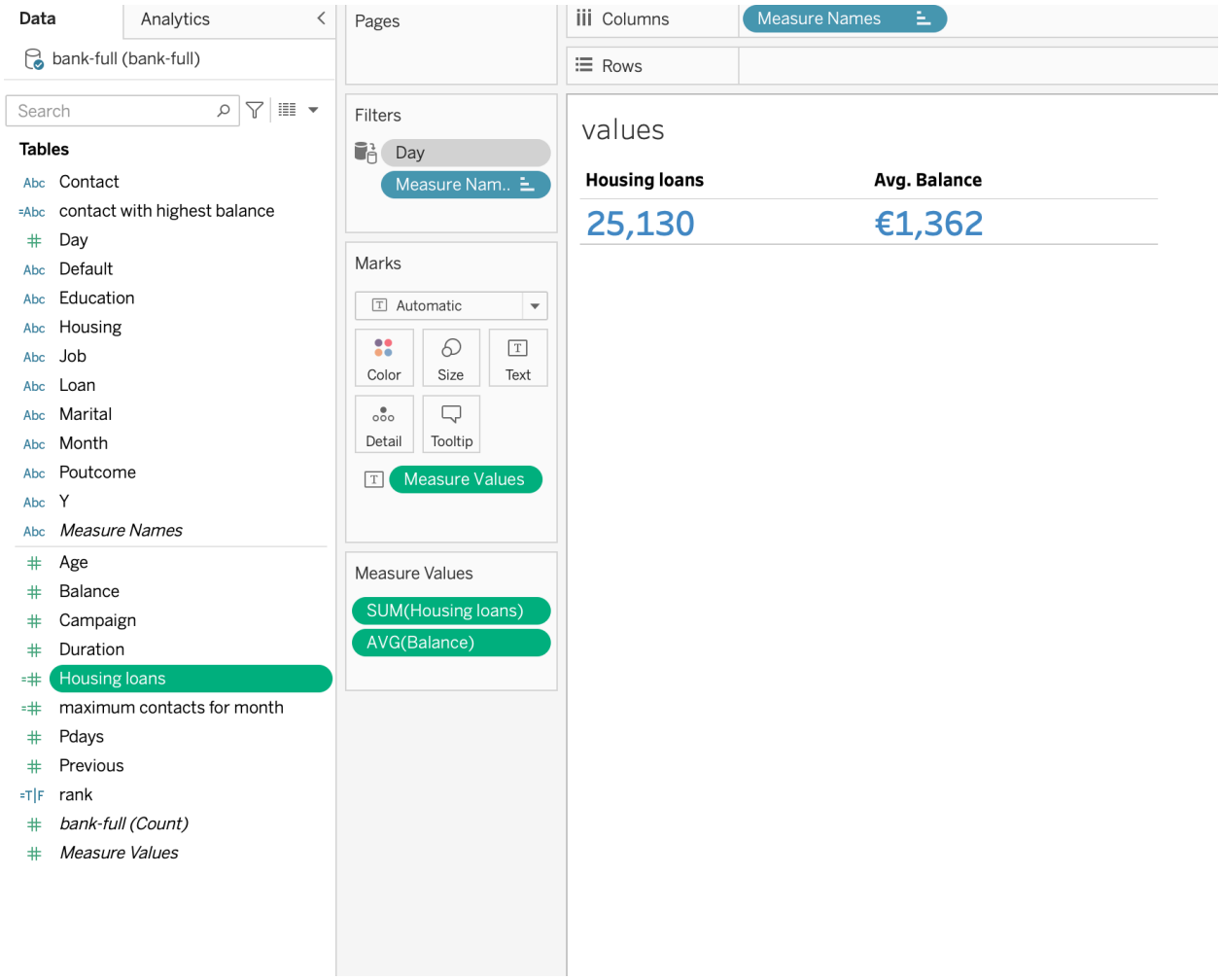
- A single value visualization, also known as a single-value chart or a key performance indicator (KPI) visualization.
- This single-valued visualization shows the top-performing month in our campaign.
- Initially, we organized the data by months, but after thorough analysis, we decided to focus on a singular crucial month, which we present as a text value.
- By applying the filters on month; by fields top 1 campaign count we get the top month for the campaign.
- Here, May is the top Campaign month.
- The Gestalt principles that I used are :
    - Similarity: The use of consistent font styles and sizes maintains visual harmony and emphasizes the significance of the top-performing month.
    - Closure: The single value is perceived as a complete entity, representing the pinnacle of our campaign's success during the selected period.

Sheet 7: Single value visualization 2



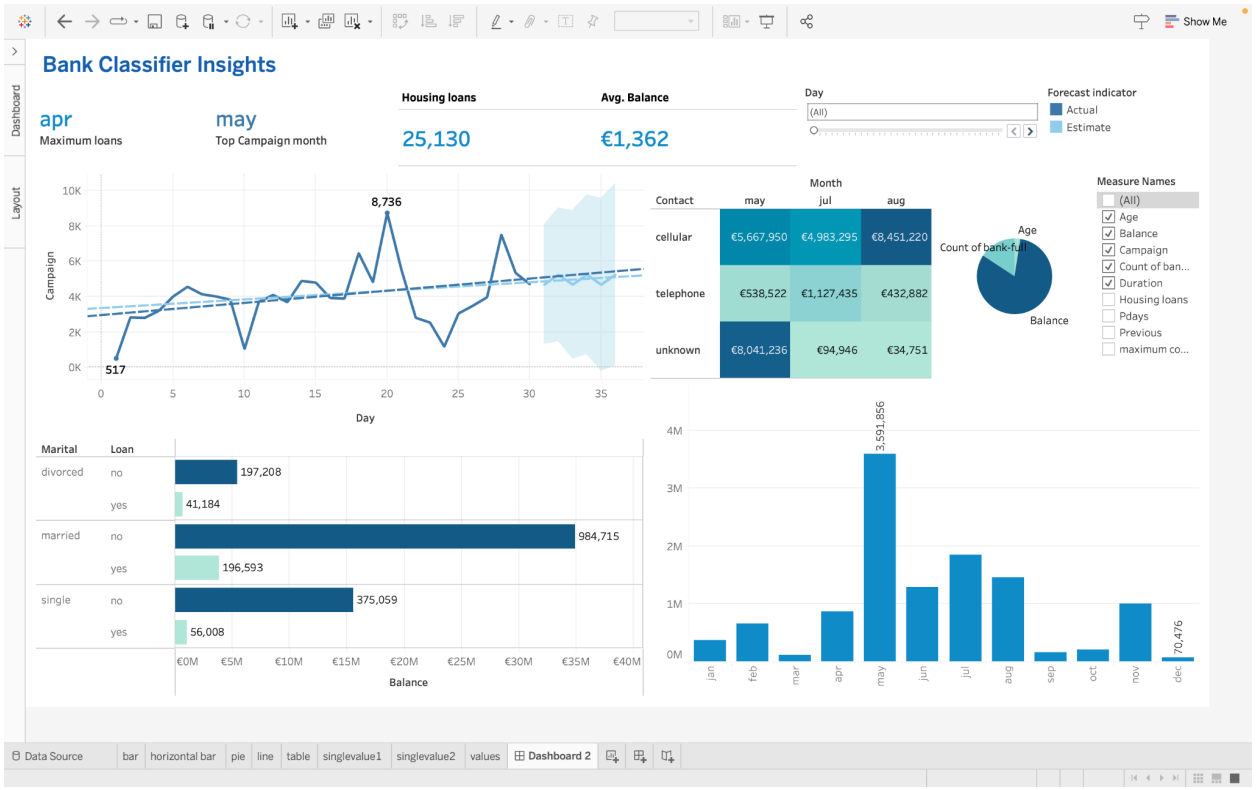
- This single-valued visualization shows the top-performing month in that having maximum loans.
- By applying the filters on month; by fields top 1 loan count we get the top month for maximum number of people having loans.
- Here, April has the maximum number of active loans..
- The Gestalt principles that I used are :
    - Similarity: The use of consistent font styles and sizes maintains visual harmony and emphasizes the significance of the top-performing month.
    - Closure: The single value is perceived as a complete entity, representing the pinnacle of our campaign's success during the selected period.

Sheet 8: Single Value visualization with Filters



- This single-valued visualization shows us the number of housing loans and also the average balance.
- To get number of number of housing loans we need to create the calculation field
- The housing is of string format we are calculating the values that are of ‘yes’ the formula that we use in calculation field is :- IF [Housing] ='yes' THEN 1 ELSE 0 END
- Now the housing loan has the total number of active loans.
- Here, we additionally fetch the values of housing loans having the total average balance in euros.
- The total number of active housing loans are 25,130 and respectively the average balance of 1,362 euros.

Dashboard:



- The Dashboard has the data source of bank-full. I got this data from kaggle. Here I made 8 visualizations.
- The first visualization is a bar graph, this bar graph represents the relationship between the last contact duration, measured in seconds, and the months during which these contacts occurred with minimum and maximum values.
- The second Visualization is horizontal bar graph,this horizontal bar graph, we present the average yearly balance in euros for different marital status and whether the clients have taken a loan or not. The color represents the unique description for identifying the highest and lowest values.
- The third visualization is pie chart, this pie chart represents a comprehensive overview of various measuring values, allowing you to grasp the distribution and proportions of each component at a glance.
- The fourth visualization is a line chart, the line graph shows the daily performance of our campaign, represented by the number of contacts made with each client. It has the highest campaign on the day 20 i.e 8,736 and minimum took place on the starting day 1 with 512.
- The fifth visualization is table, this table showcases the breakdown of contact communication types across the top 3 months.
- The sixth, seventh and eighth visualizations are single valued visualizations.

1 page summary:

I developed my dashboard using 6 visualizations: bar graph, horizontal bar graph, line chart, table, pie chart ,and single valued visualization.I encountered several obstacles and acquired valuable insights while creating visuals for the banking dataset, allowing me to draw meaningful conclusions.I was able to derive useful information from the dataset and produce visually appealing visualizations that targeted to my chosen audience persona, however, through careful thought and creative problem-solving.

My journey began with careful data exploration, understanding the structure of the dataset, and identifying key variables. Contact durations, balance patterns, as well as loan statuses, and campaign performance were all included in the dataset.

Now I'm mentioning some of the issues which i encountered during the development of my dashboard:

The dataset has some missing values, cleaning and handling of the data is crucial for maintaining visualization integrity. When combining different datasets, it was difficult to ensure data compatibility and consistency across visualizations. It was critical to coordinate the data in order to deliver a unified and consistent story. Visual Representation was a difficult task to transform raw data into visually appealing and obvious representations. The characteristics of the data had to be carefully considered when selecting the right chart type and designing visually consistent graphs.

By overcoming the above challenges I developed the dashboard very effectively and meaningful to understand by the audience. The bar graph showed seasonal patterns and peak months for customer interactions by highlighting the distribution of last contact durations across different months. The line graph provided an overview of the campaign's daily performance, allowing us to forecast future trends and improve marketing strategies.The data table displayed the breakdown of contact communication types and their corresponding balances, assisting us in creating communication strategies.