Data Analysis and Visualization

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Objective: Analyze and visualize a dataset to extract key insights.

Instructions: Perform exploratory data analysis (EDA) and create visualizations using a tool of your choice (e.g., Tableau, Power BI). Write a brief report summarizing your findings and explaining the visualizations you created.

Quick EDA

Steps I followed for a quick review of all datasets:

- Checked the structures of datasets including the number of non-null entries, data types of columns, and memory usage. It helps in understanding the dataset's structure and identifying any missing values or data type issues.

- Checked whether all values in certain columns are unique.

- Handled null values in 'Tenure' column:

1. Checked if the Tenure column is normal or non-normal distributed

2. Found out that this column was non-normally distributed using matplotlib

3. As a result, handled null values by filling them with the median for more precise analysis

Data Visualization

In the first page:

- There is a card visual that displays the count of the customers.

- The customers are exclusively from Europe, as shown on the donut chart, with the majority from the UK, followed by France, Germany, and Spain.

- Most of the customers are from UK as we see from a map visual.

- The majority of customers are consumers, followed by publishers and administrators.

- They mostly belong to medium-sized companies, with 5,000 to 50,000 employees.

- Most customers have a tenure of 10 to 20 years.

Findings from visualization

I added filters to both pages to better understand customers' characteristics and behaviours who gave low and high ratings.

Customers who rated the service poorly:

- The total is 5.293, which represents 11% of all customers.

- The top three reasons customers gave low ratings are speed, features, and price.

- 63% of customers did not finish the tutorial.

- 83% of customers subscribed to the Premier plan, 16% to the Basic plan, and **none** are using the Deluxe plan.

- Most customers use browsers, followed by mobile devices and then tablets.

- Most of these customers applied for support tickets, with the majority being in the UK, followed by France.