**1. Key Business Goal**

The primary goal of this churn analysis dashboard is to provide actionable insights into customer churn data, enabling stakeholders to make informed decisions. This dashboard aims to:

* Identify patterns and trends associated with customer churn.
* Highlight key metrics such as churn rate, customer demographics, and geography-based analysis.
* Support retention strategies through data-driven insights.
* Enhance understanding of factors influencing customer churn, such as gender, geography, and active membership status.

**2. Key Visuals**

To effectively communicate insights, the following visuals are included in the churn analysis dashboard:

* **Bar Chart**: Displays customer count by geography and churn status to identify regional trends.
* **Pie Chart**:
  + Shows the proportion of churned vs. retained customers.
  + Shows the proportion of ActiveMember by gender.
  + Shows the proportion of Customers has Credit Card and IsActiveMember.
* **Donut Charts**: Distribution of gender by credit score.
* **Line Chart**: Displays customer churn trends by age.
* **Interactive Filters**: Enable segmentation by geography, gender, and tenure.
* **KPIs**:
  + Total Customers.
  + Churned Customers.
  + Churn Rate (%).

**3. Tasks and Subtasks**

**Task 1: Data Preparation**

* Import the churn dataset.
* Clean data by handling missing values and correcting inconsistencies.
* Perform exploratory data analysis (EDA) to identify relationships and trends.

**Task 2: Dashboard Design**

* Define the layout and structure of the dashboard.
* Select tools such as Power BI for interactive visualization.
* Plan visual placement for clarity and user engagement.

**Task 3: Data Visualization Implementation**

* Build individual visuals:
  + Create bar and pie charts for churned vs. retained customer counts.
  + Generate interactive charts for segmentation by geography, gender, and other factors.
* Implement KPI indicators.
* Add interactive features like slicers and filters.

**Task 4: Testing and Validation**

* Validate the accuracy of visuals and data links.
* Test interactive components (e.g., filters).
* Gather stakeholder feedback to refine visuals and interactivity.

**Task 5: Deployment and Documentation**

* Publish the dashboard to a shared Power BI workspace or export as a report.
* Create user documentation with guidelines for navigation and interaction.

**4. Determining the Measurements for KPIs**

The effectiveness of the dashboard will be evaluated using the following KPIs:

* **Churn Rate**: Percentage of customers who have churned.
* **Customer Segmentation**: Proportion of churned customers by geography, gender, and active membership.
* **Engagement Metrics**: Monitor filter usage patterns to understand user interaction.
* **Retention Insights**: Identify patterns in customer demographics and behavior influencing churn.
* **User Satisfaction**: Collect feedback from stakeholders to assess usability.

**5. Final Output or Conclusion**

The churn analysis dashboard is a comprehensive tool for visualizing and analyzing key insights into customer churn. With interactive visuals and clear KPIs, the dashboard enables stakeholders to:

* Identify trends and patterns for customer retention strategies.
* Understand demographic and behavioral factors influencing churn.
* Make data-driven decisions to optimize retention efforts.

By providing actionable insights in an accessible format, the dashboard empowers stakeholders to address churn proactively and improve overall customer satisfaction. This project marks a significant step towards leveraging data analytics for strategic decision-making.