**Business Question and Visualization Report**

| Date | 16 December 2024 |
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| Team ID | 17 |
| Project Name | VoyageVista: Illuminating Insights from Uber Expeditionary Analytics Using Tableau |
| Maximum Marks | 3 Marks |

Visualization development refers to creating graphical data representations to facilitate understanding, analysis, and decision-making. The goal is to transform complex datasets into visual formats that are easy to interpret, enabling users to gain insights and make informed decisions. Visualization development involves selecting appropriate visual elements, designing layouts, and using interactive features to enhance the user experience. This process is commonly associated with data visualization tools and platforms, and it plays a crucial role in business intelligence, analytics, and reporting.

**Business Questions and Visualisation**

The process involves defining specific business questions to guide the creation of meaningful and actionable visualizations in Tableau. Well-framed questions help identify key metrics, select relevant data, and build visualizations that provide insights.

**1. What are the peak ride usage times throughout the day?**

* **Visualization**: Line chart showing the number of rides per hour of the day.
* **Insights**: Identifies peak hours to help optimize driver deployment and pricing strategies.

**2. How does ride demand vary across days of the week?**

* **Visualization**: Bar chart showing total rides per day of the week.
* **Insights**: Highlights the busiest and least busy days, assisting in weekly planning and resource allocation.

**3. What is the distribution of ride categories (Business vs. Personal)?**

* **Visualization**: Pie chart showing the proportion of business and personal rides.
* **Insights**: Provides insights into user preferences and helps customize services for different customer segments.

**4. Which routes are the most popular?**

* **Visualization**: Bar chart listing the top 10 routes (Start to Stop locations) based on the number of rides.
* **Insights**: Identifies frequently travelled routes to optimize operations and targeted promotions.

**5. How do ride purposes vary by category?**

* **Visualization**: Stacked bar chart showing ride purposes (e.g., Meetings, Errands) split by Business and Personal categories.
* **Insights**: Offers insights into user behaviour for different ride purposes, helping tailor services accordingly.

**6. How do trip durations vary across regions?**

* **Visualization**: Map visualization displaying average trip durations by region or city.
* **Insights**: Helps identify regions with high travel times, aiding in improving traffic route suggestions.

**7. What is the trend in total miles travelled over time?**

* **Visualization**: Line chart showing total miles travelled by month.
* **Insights**: Helps understand trends in ride activity and whether overall demand is increasing or decreasing.

**8. How does customer feedback (if available) correlate with ride performance?**

* **Visualization**: Scatter plot comparing feedback scores with ride durations or other metrics.
* **Insights**: Identifies factors contributing to high or low customer satisfaction, enabling targeted improvements.