Cars on Rent Data Analyst Case Study – Questions

This document contains analytical and business case questions designed for the Cars on Rent dataset. These questions can be answered using Excel, SQL, or Power BI to demonstrate data analysis and visualization skills.

⧠ Business Performance Analysis

- 1. What is the total revenue generated from all rentals?
- 2. Which city has the highest rental revenue?
- 3. What is the average rental duration per booking?
- 4. Which car category (Sedan, SUV, Electric, etc.) contributes the most to revenue?
- 5. Which brand of cars has the best customer ratings on average?

⧠ Customer Insights

- 6. How many customers belong to each membership type (Gold, Silver, Platinum)?
- 7. Which membership type generates the highest total revenue?
- 8. Which city has the most loyal (repeat) customers?
- 9. Who are the top 5 customers by total spending?
- 10. What is the average rating provided by each membership tier?

⧠ Fleet Utilization

- 11. Which cars are rented the most frequently?
- 12. What is the average revenue generated per car?
- 13. What percentage of total rentals comes from Electric cars?
- 14. Which transmission type (Manual vs. Automatic) is more popular among renters?
- 15. Identify cars that have not been rented in the last 3 months.

⧠ Maintenance Analysis

- 16. What is the total maintenance cost for each car?
- 17. Which city has the highest maintenance expenses?
- 18. What is the ratio of maintenance cost to total revenue for the fleet?
- 19. Which garage performs the most maintenance tasks?
- 20. Identify cars with maintenance cost exceeding 5% of their total rental revenue.

⧠ Trend & Time-Series Insights

- 21. What is the monthly trend of revenue over the year?
- 22. During which months are rentals highest and lowest?
- 23. How do ratings vary month to month?
- 24. Does any city show seasonality in rentals (peak months)?
- 25. How can the company use these trends to plan promotions or fleet allocation?

Advanced / Scenario-Based Questions

- 26. If the company increases SUV rental rates by 10%, what will be the expected increase in revenue?
- 27. Which cities could benefit from adding more Electric vehicles based on demand trends?
- 28. Identify underperforming cars that generate below-average revenue but high maintenance cost.
- 29. Suggest strategies to improve customer ratings and retention.
- 30. Create a Power BI or Excel dashboard to summarize the above insights visually.