# Project Questions – Data Manipulation and Visualization (Car & Employee Data)

1. Load the car dataset and display its structure. What data types are used for each column?

2. Filter the cars that have been driven more than 100,000 km and have a selling price below 500,000.

3. Group the data by fuel type and calculate the average selling price for each group.

4. Create a bar chart to visualize the number of cars available by transmission type.

5. How many cars were sold each year? Display this using a line graph.

6. Identify the top 5 most common car names in the dataset.

7. Create a scatter plot showing the relationship between year and selling price.

8. Convert the ‘year’ column to a new column showing the age of the car.

9. Create a boxplot comparing selling prices across different fuel types.

10. Create a histogram to show the distribution of km\_driven values.

11. Load the employee dataset and check for any missing values.

12. Create a summary table showing the average age and length of service by gender.

13. Create a grouped bar chart of the number of employees by JobTitle and Gender.

14. Which department has the highest average absent hours?

15. Create a pie chart of the distribution of employees across different BusinessUnits.

16. Filter the employees who have more than 10 years of service and work in the 'Finance' department.

17. Create a boxplot comparing absent hours across different divisions.

18. Calculate the correlation between Age and AbsentHours. What does it imply?

19. Create a heatmap showing the number of employees per city and department.

20. Write a function that categorizes employees as ‘Junior’, ‘Mid-level’, or ‘Senior’ based on their LengthService.