

Data Analyst Interview Test

Part I : SQL Skill Assessment

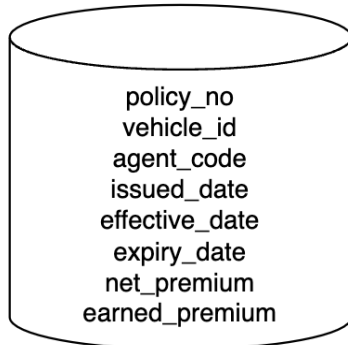


Table 1



Table 2

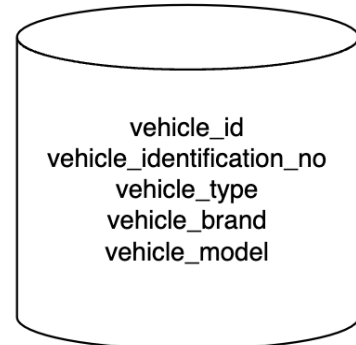


Table 3

You have 3 tables related to motor insurance to do the following tasks.




- **Table 1: POLICY_TRANSACTION** – Contains details of issued policies, including policy number, coverage periods, and premium amounts.
- **Table 2: CLAIM_TRANSACTION** – Records claims made under each policy, including claim amounts.
- **Table 3: VEHICLE_MASTER** – A reference table containing details about each vehicle, including brand, model, and identification number.
- **Additional information:**
 - This dataset contains only policies from motor voluntary insurance.
 - Loss Ratio is calculated as **claim_amount / earned_premium**.

Given data for question 1–5.

1. What is the distribution of the number of claims based on the time gap (in days) between the claim accident date and the policy effective date?

2. What percentage of the total net premium is contributed by the Top **10 vehicle brands** compared to all other brands?

3. Which **3 vehicle brands and models** had the highest increase in loss ratio in 2024 compared to 2023?

4. How many policies fall under each **customer risk segment (Good, Moderate, Bad)** per insurance agent, considering only policies that will expire within the next 60 days?
- Customer Risk Segmentation Criteria:
 - i.  Good: Loss ratio < 50%
 - ii.  Moderate: Loss ratio 50% – 80%
 - iii.  Bad: Loss ratio > 80%