

1. Creating a Sales-Focused Inventory View

This view is designed to enhance the capabilities of the sales department by providing a comprehensive inventory list. It includes detailed information that allows vendors to communicate more accurately with clients and effectively monitor inventory status.

```
CREATE VIEW V_Sales_List AS
SELECT
    manufacturer_name AS Manufacturer,
    model_name AS Model,
    year_produced AS Year,
    color AS Color,
    odometer_value AS "Mileage (km)",
    engine_fuel AS "Fuel Type",
    engine_capacity AS Engine,
    has_warranty AS "Has Warranty?",
    price_usd AS "Price USD"
FROM
    cars;
```

2. Inventory per brand

```
SELECT
    manufacturer_name AS Manufacturer,
    COUNT(*) AS Total_Cars,
    CAST(AVG(year_produced) AS INT) AS Average_Year,
    CAST(AVG(price_usd) AS INT) AS Average_Price,
    CAST(SUM(price_usd) AS INT) AS Total_Price
FROM
    cars
GROUP BY
    manufacturer_name
ORDER BY
    Total_Cars DESC;
```

3. Warranty Status

```
SELECT
    has_warranty AS Warranty_Status,
    COUNT(*) AS Total_Stock
FROM
    cars
GROUP BY
    has_warranty;
```

4. Inventory per decade of manufacturing

```
SELECT
  ((CAST(year_produced AS INTEGER) / 10) * 10) || 's' AS Decade,
  COUNT(*) AS Cars_Per_Decade,
  SUM(price_usd) AS Total_Price
FROM
  cars
GROUP BY
  ((CAST(year_produced AS INTEGER) / 10) * 10) || 's'
ORDER BY
  Decade;
```

5. Distribution of inventory per color

```
SELECT
  color AS Color,
  COUNT(*) AS Total_Cars,
  CAST(AVG(year_produced) AS INT) AS Average_Year,
  CAST(AVG(price_usd) AS INT) AS Average_Price
FROM
  cars
GROUP BY
  color
ORDER BY
  Total_Cars DESC;
```

6. Top 5 brands per likes x % inventory

-- Calculate the total inventory and the upvotes for the top 5 brands

```
WITH BrandUpvotes AS (
  SELECT
    manufacturer_name,
    SUM(up_counter) AS Total_Upvotes
  FROM
    cars
  GROUP BY
    manufacturer_name
  ORDER BY
    Total_Upvotes DESC
  LIMIT 5
),
TotalInventory AS (
  SELECT
    COUNT(*) AS Total_Cars
  FROM
    cars
)
```

-- Calculate the percentage of total inventory for each top brand

```
SELECT
b.manufacturer_name AS Brand,
b.Total_Upvotes,
ROUND((COUNT(c.manufacturer_name) * 100.0) / t.Total_Cars, 2) AS
Inventory_Percentage
FROM
cars c
JOIN
BrandUpvotes b ON c.manufacturer_name = b.manufacturer_name
CROSS JOIN
TotalInventory t
GROUP BY
b.manufacturer_name
ORDER BY
b.Total_Upvotes DESC;
```