**🔹 Section 1: Basic SELECT & LIMIT**

1. Show the **first 10 customers** from the customers table.

Select \* from customers limit 10;

1. Display the **names and emails** of all customers.

Select name, email from customers;

1. List the **first 5 products** along with their product\_name, category, and price.

Select product\_name, category, price from products limit 5;

1. Retrieve all columns from the transactions table but **limit** the result to 5 rows.
2. Show the **top 10 most expensive products** from the products table.

**🔹 Section 2: Filtering Data (WHERE)**

1. Find all **customers from Dubai**.
2. Retrieve all **orders** with a status of 'Completed'.
3. Get all **products priced between 100 and 500**.
4. Find all **transactions above 1000 AED**.
5. List all **orders placed before 2025-01-01**.

**🔹 Section 3: Sorting & Limiting (ORDER BY, LIMIT)**

1. Show the **5 newest customers** based on created\_at.
2. Display **products** sorted by stock in ascending order.
3. Show the **highest 10 transaction amounts**.
4. Find the **latest 5 transactions** by transaction\_date.
5. Display **customers** ordered alphabetically by city.

**🔹 Section 4: DISTINCT & Simple Aggregates**

1. List all **unique payment methods** from the transactions table.
2. Count how many **distinct cities** your customers come from.
3. Calculate the **average price** of all products.
4. Find the **minimum and maximum transaction amount**.
5. Count how many **orders are currently marked as “Pending”**.

**🧮 Bonus Challenge: Intro to Analysis (Intermediate)**

1. For each **payment method**, show the **total and average transaction amount**.
2. Find the **total revenue per day** using the order\_items table.
3. Get the **top 5 customers** who placed the **most orders**.
4. List **products with zero stock**.
5. Find the **most common product category**.
6. Retrieve the **total number of transactions per month**.
7. List all **orders with their customer names** (JOIN orders + customers).
8. Display all **transactions with their corresponding order status** (JOIN transactions + orders).
9. Show the **average order size (total\_price)** by **product category**.
10. Identify the **highest-value transaction and its payment method**.

**🧾 Optional “Mini Projects”**

These are small real-world analysis tasks you can include in your select\_basics\_summary.md.

**💡 Mini Project 1 — “Customer Overview”**

* How many customers do you have per country?
* Who are the newest 5 customers?
* Which cities have the most customers?

**💡 Mini Project 2 — “Product & Sales Insights”**

* Which 10 products generate the most revenue (from order\_items)?
* What’s the average stock by category?
* Which categories have the highest product count?

**💡 Mini Project 3 — “Payments & Orders”**

* Which payment method contributes the most total amount?
* How many transactions occurred this month?
* Are there any orders without a matching transaction? *(hint: LEFT JOIN)*

**🧩 SQL Practice — Joins, Group By, and Aggregation**

1. **Customer Orders Summary**  
   Retrieve each customer’s name and the total number of orders they have placed.
2. **Total Quantity per Product**  
   For each product, calculate the total quantity sold across all orders.
3. **High-Spending Customers**  
   List all customers who have spent more than 5,000 in total purchases.
4. **Revenue by Product Category**  
   Show the total revenue generated for each product category, sorted from highest to lowest.
5. **Average Order Value per Customer**  
   Calculate the average value of each customer’s orders.
6. **Unordered Products**  
   Find all products that have never been ordered.
7. **Customers Without Orders**  
   Display customers who haven’t placed any orders yet.
8. **Most Popular Product**  
   Identify the product that has been ordered the most (by total quantity sold).
9. **Top 5 Customers by Spending**  
   Find the 5 customers who have spent the most money overall.
10. **Monthly Revenue Trend**  
    Calculate the total revenue for each month based on order dates.
11. **Category with Highest Average Price**  
    For each category, compute the average product price and identify the highest one.
12. **Customer–Category Combination**  
    Find which product category each customer buys from the most.
13. **Orders with Multiple Products**  
    List all orders that contain more than one product.
14. **Products Bought by a Specific Customer**  
    Show all products purchased by the customer named *“Maria White”*.
15. **Top-Selling Category by Revenue**  
    Determine which product category generates the highest total revenue.
16. **Inactive Customers in the Last 3 Months**  
    List customers who have not made any purchases in the last three months.
17. **Repeat Buyers**  
    Identify customers who have placed more than one order.
18. **Average Quantity per Order by Category**  
    For each category, calculate the average quantity of products ordered per order.
19. **Customer Count per City**  
    Display the number of customers living in each city.
20. **Products Purchased by All Customers**  
    Find products that have been purchased by every customer at least once.