The Assessment

Part 1: SQL Task

Objective: Assess proficiency with SQL and ability to analyze data.

Context

You have access to a database of a beauty brand named "**GetReady**" with three key tables: `orders`, `customers`, and `products`. As a Product Analyst, your task is to analyze sales performance, customer demographics, and product popularity using SQL. The database includes orders placed by customers, customer demographic data, and product details.

Note: Some customers may not have placed any orders yet, and some products may not have been sold.

Table Schemas

1. `orders`
   - `order_id` (INT): Unique identifier for each order
   - `customer_id` (INT): ID of the customer who placed the order
   - `product_id` (INT): ID of the product purchased
   - `order_date` (DATE): The date when the order was placed
   - `quantity` (INT): Number of units ordered
   - `order_amount` (DECIMAL): Total amount for the order
2. `customers`
   - `customer_id` (INT): Unique identifier for each customer
   - `customer_name` (VARCHAR): Name of the customer
   - `age` (INT): Age of the customer
   - `country` (VARCHAR): Country of the customer
   - `signup_date` (DATE): Date when the customer signed up
3. `products`
   - `product_id` (INT): Unique identifier for each product
   - `product_name` (VARCHAR): Name of the product
   - `category` (VARCHAR): Category of the product (e.g., 'Electronics', 'Apparel', 'Home')
   - `price` (DECIMAL): Price per unit of the product

Questions

1. Revenue from Active and Inactive Customers:

Write a SQL query to calculate the total revenue generated by **active customers**

(customers who have placed at least one order) and **inactive customers** (customers who have

signed up but not yet placed any orders). The result should include:

customer name, total orders and customer type (active or inactive)

2. Top Products by Revenue and Unused Products:

Write a SQL query that lists the **top 3 products by total revenue** along with their

category, quantity, and total revenue. Additionally, also list products that **haven't been sold in**

the same table.

3. Customer Segmentation Based on Average Spending:

 You want to segment customers into three groups based on their average order

amount. Define an approach to come up with a segment definition for customers based on the data you have and. Write a SQL query that groups customers based on their average order amount and displays *(you are can be creative here and make certain assumptions if you find something missing :)*

Provide a brief explanation of your approach in each of the above questions.

Part 2: Analytical Questions

Objective: Assess analytical and problem-solving skills.

Question 1:
Scenario: "GetReady" noticed a drop in number of orders in the last month for a particular product. How would you approach identifying the cause? You can make certain assumptions but make sure you list all of them in your solution

Question 2:
Scenario: You need to design an event tracking schema for a new feature that allows users to create and add products to a "Wishlist" on a D2C e-commerce website.
Describe five key events you would track and explain why each is important.