**1**. **Retrieve all customers from a specific State, City and Zip code that contains 3,5,7. (Filtering using WHERE and using Wildcards)**

* **Interpretation:** According to the problem statement we had to retrieve all the customers from a specific **State: SP, City: Santos and Zip Code that contains numbers 3,5,7** in them. As a result, a total of 5 customers were fetched from the data.
* **Recommendation:** This type of selected data can help us in Targeted Marketing, Regional Analysis and Data Validation. We can advertise/market and target the customer preferences/likes from different States, cities, and zip code according to the results we have.

**2.** **List all delivered orders. (Aggregation using COUNT)**

* **Interpretation:** As stated in the query we can identify the status of the orders that are delivered, not delivered or are in transit. **Here a total of 10 orders are** **delivered till now.**
* **Recommendation:** With this interpretation we can track how many orders have been successfully delivered and if not then where to work and maybe how to improve the transportation and logistics to deliver the order in time.

**3. Find total revenue (price + shipping charges) for each order. (Aggregation, Group By & Order By)**

* **Interpretation:** From this problem statement we can interpret the total revenue that is from the prices and the shipping charges of the orders.
* **Recommendations:** We can provide deals like buy 1 get 1 on the most purchased orders and reduce the shipping charges on the less purchased orders and improve their quality according to customer preference.

**4. Get the top 5 most expensive products. (Sorting with ORDER BY and limiting results)**

* **Interpretation:** Above problem statement shows us the most expensive products from the given product categories which here are the **Toys** costing at an average price of **₹123/-**
* **Recommendation:** With this, one can focus on identifying and highlighting the most valuable products that are luxurious and high-ended items to target specific consumer segment.

**5. Identify orders with more than 2 items. (HAVING with grouped data)**

* **Interpretation:** With using those SQL concepts, we can identify the orders of the customers who bought more than one product. The result shows that an **average customer buys** **between 3 to 5 products** while shopping.
* **Recommendation:** First identify those customers. So, we can provide bundle deals on the products to make them buy more products in one order. And we need to make sure that the frequently bought items are properly stocked in the inventory.

**6. Join orders with customers to get customer details for each order. (Inner join)**

* **Interpretation:** This concept will join different data tables into one single table. Which will help us in connecting and working on the data more accurately. Here the **customer table and order table are joined to identify the customer details**.
* **Recommendations:** We can analyse the customer’s order/product requirements depending on their demographic locations. Also, one can identify the most revenue generating City or State to perform marketing strategies.

**7. Find the average price of all products in each category. (Aggregation with AVG and grouping)**

* **Interpretation:** With this problem statement using the above concept one can find the average of any required data. Here the price of the products in each category is fetched.
* **Recommendations:** With the results we can verify and compare the average price of each product in the category with the industry. We can also conduct market research to optimise the price ranges and increase our profits in case of competition.

**8. Calculate the total shipping charges for each state. (Multi-table join with grouping)**

* **Interpretation:** With this type of problem statement, we can calculate the total shipping charges for each state. Depending upon the business requirement one can get the shipping charges according to City and Zip code. Here there are a **total of 6 states with their respective charges**.
* **Recommendation:** There maybe a problem arise in future about the high shipping charges. To address this problem, we can optimize the selected delivery routes or establish regional warehouses to enhance and improve the delivery infrastructure.

**9. Find the product category with the most orders. (Join, aggregation, and limiting results)**

* **Interpretation:** Using those above-mentioned concepts, we can find the most ordered product category from the data. Here **toys topped the chart in the categories with a total order of 4687**.
* **Recommendation:** Identifying the product category with the most orders helps focus marketing and inventory efforts. Prioritize stocking and promoting high-demand categories to meet customer needs and maximize revenue. Additionally, analyse customer preferences within these categories to design targeted campaigns and develop product bundles to increase sales.

**10.**

**11. Find customers who placed more than 1 order. (Grouping and filtering grouped results)**

* **Interpretation:** The analysis on this concept shows us the customers who placed more than 3 orders. In case we do not have the customer’s name column we can use their Id or city based on the customers. Here we have a **total of 10 customers who placed more than 1 order.**
* **Recommendation:** Identifying those customers who placed more than 1 order can be loyal or high-value consumers. So, we can provide them discounts and bundle deals or membership benefits to retain them.

**12. List all orders that include products in the "electronics" category. (Filtering with joins)**

* **Interpretation:** Filtering with joins one can find the all the number and category of the products according to the requirements. Here we can find the total of electronic products and their delivery status. **There are total of 16 electronic products that are delivered**.
* **Recommendation:** Identifying orders containing "electronics" helps target customers interested in this category. Additionally, analyse purchasing trends in this category to optimize inventory and forecast demand effectively.

**13. Find the state with the highest total revenue. (Aggregation with ranking)**

* **Interpretation:** The ranking and aggregation concept can be useful to us in finding the state or city or country’s highest or total revenue. Here the **top-ranking state is SP and the total revenue is ₹936.09.**
* **Recommendation:** Identifying the state with the highest revenue helps prioritize key markets for business growth. Focus marketing campaigns, product availability, and logistics improvements in this region to maximize customer satisfaction and profitability.

**14. Find Customers Who Placed the Most Orders. (Sub-Query)**

* **Interpretation:** Here we can find the customers who placed most of the orders overall. The result after were, a **customer placed 6 orders in total** at once.
* **Recommendation:** Those customers can be our frequent buyers so to attract them to buy even more products we can use their behaviour patterns to identify trends and tailor marketing strategies to attract similar high-value customers. And these customers are ideal for upselling and cross-selling opportunities.

**15. Find Orders That Contain the Most Expensive Product.**

* **Interpretation:** This problem statement will give us the names of the product that contains the most expensive product in the overall category.
* **Recommendation:** Identifying orders with the most expensive product helps target premium customers who are willing to spend more.

**16. Find the total category wise count of the products from the order items. (Using Case)**

* **Interpretation:** With using the case concept, we can find the result of price range categories of different products. Here there are 3 types of categories Cheap, Medium, and Expensive. Cheap product sales rank the highest among all 3. Following the 2nd place medium product sales and finally Expensive product sales ranking at 3rd position.
* **Recommendation:** Focus on high-demand categories to maximize sales through targeted promotions and optimized inventory. Address underperforming categories by improving product visibility, pricing, or availability. Use this data to align marketing strategies with customer preferences and drive overall revenue growth.