1️⃣ What is a Pivot Table and why is it useful?

A **Pivot Table** is a data analysis tool in Excel that allows us to **summarize, group, and analyze large datasets** quickly without changing the original data.

It is useful because it helps analysts:

- Aggregate data (such as sum, count, or average)
- Compare values across categories
- Identify trends and patterns easily
- Create quick reports for decision-making

Pivot Tables save time and make data analysis more efficient and accurate.

2️⃣ What is the difference between COUNT and COUNT DISTINCT in analysis?

COUNT counts the **total number of records**, including repeated values.

COUNT DISTINCT counts only the **unique values**, ignoring duplicates.

For example, if a customer appears multiple times:

- COUNT shows total transactions
- COUNT DISTINCT shows the number of unique customers

This difference is important when analyzing **unique entities versus total activity**.

3️⃣ How would you identify which region is underperforming?

To identify an underperforming region, I would:

1. Create a Pivot Table showing **total sales by region**
2. Compare each region's sales with the overall average
3. Sort the values from **lowest to highest**
4. Use conditional formatting to visually highlight low-performing regions

The region with consistently lower sales compared to others would be considered underperforming.

4️⃣ Explain what slicers are and when they are used.

Slicers are visual filtering tools in Excel that allow users to **interactively filter Pivot Tables and charts** using buttons instead of dropdowns.

They are used when:

- Creating dashboards
- Comparing data across categories
- Making reports more user-friendly
- Allowing non-technical users to explore data easily

Slicers improve both usability and presentation of reports.

5️⃣ Why should analysts write insights in addition to tables?

Tables show **numbers**, but insights explain **what the numbers mean**.

Analysts write insights to:

- Translate data into business understanding
- Highlight key findings and trends
- Support decision-making
- Communicate results clearly to non-technical stakeholders

Without insights, data lacks context and business value.