🧠 Practice Exercise: Advanced Cursor Usage in PL/SQL

Your Task

Develop a **PL/SQL block** that defines a **cursor** to retrieve the following information **for each department**:

→ **Department Name**
→ **Manager Name** (if available)
→ **Number of Employees**
→ **Total Salary**

Your solution should use a **cursor-based record** to store and display the results and must correctly handle departments **without a manager or employees**.

💡 Tips & Hints

→ Use a **cursor-based record** with the `%ROWTYPE` attribute to match the cursor structure
→ Use **LEFT JOINs** to ensure all departments are included
→ Apply **aggregate functions**:

- `COUNT()` for the number of employees
- `SUM()` for the total salary
  → Use `NVL()` to handle null values (such as missing manager names)

🚀 Before You Check the Solution

The real learning happens when you **challenge yourself first**.

→ Don't worry if you get stuck — that's part of the process
→ Break the problem into smaller, manageable steps
→ Discuss the approach with a study partner if possible

Often, talking through the logic leads to that "Aha!" moment.

✅ When You’re Ready

After giving it your best effort:

→ Download the solution to review your approach
→ Compare techniques and identify improvements

Remember:
Every line of code you write — successful or not — is progress on your **PL/SQL journey**.

🔥 Ready to dive in and show those cursors who’s boss?
Let’s code!

📚 Resources for This Lecture

(See the attached materials and reference files)