Experiment No 2.2:

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1. Aim/Overview of the practical:

You are a Data Engineer at FinSight Corp, a company that models Net Present Value (NPV) projections for investment decisions. Your system maintains two key datasets:
Year_tbl: Actual recorded NPV's of various financial instruments over different years:
ID: Unique Financial instrument identifier.
YEAR: Year of record
NPV: Net Present Value in that year
Queries_tbl: A list of instrument-year pairs for which stakeholders are requesting NPV values:
ID: Financial instrument identifier
YEAR: Year of interest.
Find the NPV of each query from the Queries table. Return the output order by ID and Year in the sorted form.
However, not all ID-YEAR combinations in the Queries table are present in the Year_tbl. If an NPV is missing for a requested combination, assume it to be 0 to maintain a consistent financial report.

2. Theory:

LEFT JOIN: This SQL join keeps all records from the left table (queries) and matches data from the right table (yearly NPV data). If there is no match, it returns NULL for the right table columns.

ISNULL (or COALESCE in standard SQL): This function replaces NULL with a specified value. Here, it is used to replace missing NPV values with 0.

3. Result/Output/Writing Summary:

	ID	Year	NPV
1	1	2019	113
2	2	2008	121
3	3	2009	12
4	7	2018	0
5	7	2019	0
6	7	2020	30
7	13	2019	40

Learning outcomes (What I have learnt):

1. Understood and applied LEFT JOIN to retain all query entries even when data is missing in the source table.
2. Used the ISNULL function to substitute NULL with 0 for robust financial reporting.
3. Gained the ability to sort the result using ORDER BY for clean and readable reports.