Experiment 2.2

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1. Aim: Financial Forecast Matching with Fallback Strategy

2. Objective:

- 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.

3. Code:

```
CREATE TABLE YEAR_TABLE(
ID INT,
YEAR INT,
NPV INT
);

INSERT INTO YEAR_TABLE(ID,YEAR,NPV)
VALUES
```

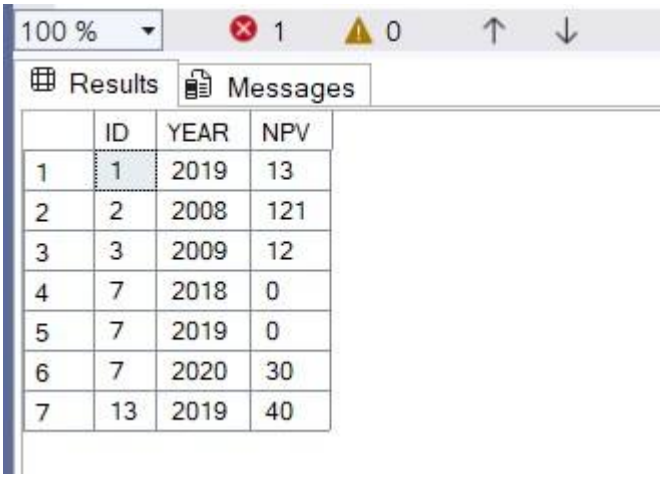
(1,2018,100),
(7,2020,30),
(13,2019,40),
(1,2019,13),

(2,2008,121),
(3,2009,12),
(11,2020,99),
(7,2019,0);

```
CREATE TABLE QUERIES_TABLE(
ID INT,
YEAR INT
);
INSERT INTO QUERIES_TABLE( ID,YEAR)
VALUES
(1,2019),
(2,2008),
(3,2009),
(7,2018),
(7,2019),
(7,2020),
(13,2019);

SELECT Q.ID,Q.YEAR,ISNULL(Y.NPV,0) AS[NPV]
FROM QUERIES_TABLE AS Q
LEFT OUTER JOIN
YEAR_TABLE AS Y
ON
Q.ID = Y.ID
AND
Y.YEAR = Q.YEAR;
```

Output:



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