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LAB7: RETAIL SALES ANALYTICS PART III

QUESTION: Develop aggregate queries in SQL on retail dataset as follows.

Write 6 SQL queries with aggregation.

- At least 1 aggregate function per query
- At least 2/5 aggregate function among the 6 queries
- At least 4 GROUP BY clauses among the 6 queries
- At least 3 HAVING clauses among the 6 queries

```
SQL> SELECT st.TYPE, AVG (s.WEEKLY_SALES) AS AVG_WEEKLY_SALES
2 FROM sales s
3 JOIN stores st ON s.STORE_ID = st.STORE_ID
4 GROUP BY st.TYPE;
```

TYPE	AVG_WEEKLY_SALES
-----	-----
A	20099.568
B	12237.076
C	9519.53254

```
SQL>> SELECT st.TYPE, f.d_DATE, MAX (f.TEMPERATURE) AS
MAX_TEMPERATURE
2 FROM features f
3 JOIN stores st ON f.STORE_ID=st. STORE_ID
4 WHERE f.d_DATE >'05-FEB-2010'
5 GROUP BY st.TYPE, f.d_DATE;
```

TYPE	D_DATE	MAX_TEMPERATURE
-----	-----	-----
A	26-OCT-12	74.39
A	25-JAN-13	60.22
A	14-JUN-13	95.1

A	10-JUN-11	87.02
A	15-JUL-11	92.83
A	12-AUG-11	96
A	09-SEP-11	96.22
A	21-OCT-11	81.74
A	18-NOV-11	66.28
A	30-DEC-11	51.6
A	06-JAN-12	60.92

```
SQL> SELECT st.TYPE, SUM (s.WEEKLY_SALES) AS TOTAL
2 FROM sales s
3 JOIN stores st ON s.STORE_ID=st.STORE_ID
4 GROUP BY st.TYPE
5 HAVING MIN(st.Measure)>=3000;
```

TYPE	TOTAL_WEEKLY_SALE
-----	-----
A	4331014723
B	2000700737
C	405503528

```
SQL> SELECT s.DEPT, COUNT (*) AS HOLIDAY_COUNT
2 FROM sales s
3 JOIN features f ON s.STORE_ID = f.STORE_ID
4 WHERE f.CPI > 220
5 GROUP BY s.DEPT
6 HAVING COUNT (*) > 2;
```

DEPT	HOLIDAY_COUNT
-----	-----

1	138138
25	136182
30	112827
22	117693
34	113679
42	137397
54	99123
51	20200
78	4023
83	104473
87	136770

```
SQL> SELECT st.TYPE, AVG (f.MARKDOWN1) AS AVG_MARKDOWN1, MAX
(f.MARKDOWN2) AS
2 MAX_MARKDOWN2
3 FROM features f
4 JOIN stores st ON f.STORE_ID = st.STORE_ID
5 GROUP BY st.TYPE;
```

TYPE	AVG_MARKDOWN1	MAX_MARKDOWN2
-----	-----	-----
A	8783.429	97740.99
B	7033.24329	104519.54
C	451.720703	3350.

```
SQL> SELECT st.TYPE, AVG (f.unemployment) AS AVG_UNEMPLOYMENT
2 FROM features f
3 JOIN stores st ON f.STORE_ID = st.STORE_ID
4 GROUP BY st.TYPE
5 HAVING AVG (f.UNEMPLOYMENT) > 7.5;
```

TYPE	AVG_UNEMPLOYMENT
-----	-----
A	7.63721705
B	7.7731354
C	8.6741449