1. Analyzing the Original Code

The original DAX measure was designed to:

- Use DATESINPERIOD to filter the last 12 months from a date table.
- Group sales data by year and month using SUMMARIZE.
- Calculate total sales for each month with ADDCOLUMNS.
- Identify the top month using TOPN. However, issues arose in how the results were processed and returned.

2. Identifying the Problems

Two key issues were found:

- **Incorrect Use of SELECTCOLUMNS**: This function referenced columns from the 'Date' table instead of the summarized table (MaxSalesMonth), leading to errors.
- Ambiguity in the RETURN Statement: The code treated columns (MonthYear[Month] and MonthYear[Year]) as single values (scalars), which caused incorrect results or failures.

3. Fixing the Code

The solution involved:

- Replacing SELECTCOLUMNS with MAXX to correctly extract single values for the month and year from the MaxSalesMonth table (which TOPN reduced to one row).
- Creating a date variable, MaxDate, using DATE(MaxYear, MaxMonth, 1) to combine the year and month into a valid date.
- Applying FORMAT(MaxDate, "MMMM yyyy") to output the result as a string, such as "January 2023".

4. Considering an Alternative

An alternative approach was explored:

- Use SELECTCOLUMNS to properly define a table with "Month" and "Year" columns from MaxSalesMonth.
- Then use MAXX to retrieve scalar values. However, the direct MAXX method was preferred for its simplicity, avoiding extra steps.

5. Final Verification

The corrected code:

- Assumes a standard date table with numeric year and month columns.
- Successfully returns a formatted string (e.g., "January 2023") for the month with the highest sales over the last 12 months.

Conclusion

The measure was fixed by ensuring proper extraction of single values from the summarized data and formatting them into the desired "Month Year" output, resolving the original errors and meeting the intended goal efficiently.



