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-- Initial Testing without Fine-tuning (Baseline Performance)
-- These queries demonstrate the performance of the base llama3 models before fine-tuning
SELECT DeviceName, SNOWFLAKE.CORTEX.COMPLETE(
    'llama3-8b', -- Base Model (8 billion parameters)
    CONCAT('What business unit manufactured this device. Only answer the question with business unit name, not other
explanations needed. If there is no known answer, return N/A: ', complaintdetails) -- Prompt
) as BU_Name
FROM customer_complaints;

-- Repeating test with a larger base model (70 billion parameters) for comparison
SELECT DeviceName, SNOWFLAKE.CORTEX.COMPLETE(
    'llama3-70b', -- Larger Base Model
    CONCAT('What business unit manufactured this device. Only answer the question with business unit name, not other
explanations needed. If there is no known answer, return N/A: ', complaintdetails) -- Prompt
) as BU_Name
FROM customer_complaints;

-- Testing with the Fine-tuned Model
-- This demonstrates the performance of your custom model on the specific task
SELECT DeviceName, SNOWFLAKE.CORTEX.COMPLETE(
    'device_llama3_8b', -- Your Fine-tuned Model
    CONCAT('What business unit manufactured this device. Only answer the question with business unit name, not other
explanations needed. If there is no known answer, return N/A: ', complaintdetails) -- Prompt
) as BU_Name
FROM customer_complaints;

-- Additional Testing on a Different Task with the Fine-tuned Model
-- Testing the model's ability to analyze customer sentiment
MEDISNOWDB.PUBLIC.DEVICES

SELECT SNOWFLAKE.CORTEX.FINETUNE('SHOW');

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Key Points:

* Baseline Comparison: The first two queries establish a baseline performance using the general purpose llama3 models.
This helps gauge the improvement gained through fine-tuning.
* Task-Specific Prompting: Notice how the prompt is designed to guide the model towards the specific information you
want (business unit name or sentiment).
* Fine-tuning Benefits: Compare the results of the fine-tuned model to the base models. You should ideally see improved
accuracy and relevance in identifying business units and sentiment analysis.
* Further Analysis: Consider a more detailed analysis of the results, including metrics like accuracy, false
positives/negatives, etc.
* Model Limitations: Even with fine-tuning, the model might still make errors, especially with ambiguous or complex
complaint details.

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