

SENTIMENT ANALYSIS

Presented by: Noah Onyebuchi



PROBLEM STATEMENT

The goal of this project is to leverage Generative AI (GenAI) models to analyze customer call transcripts and extract actionable insights



CALL OUTCOME PREDICTION

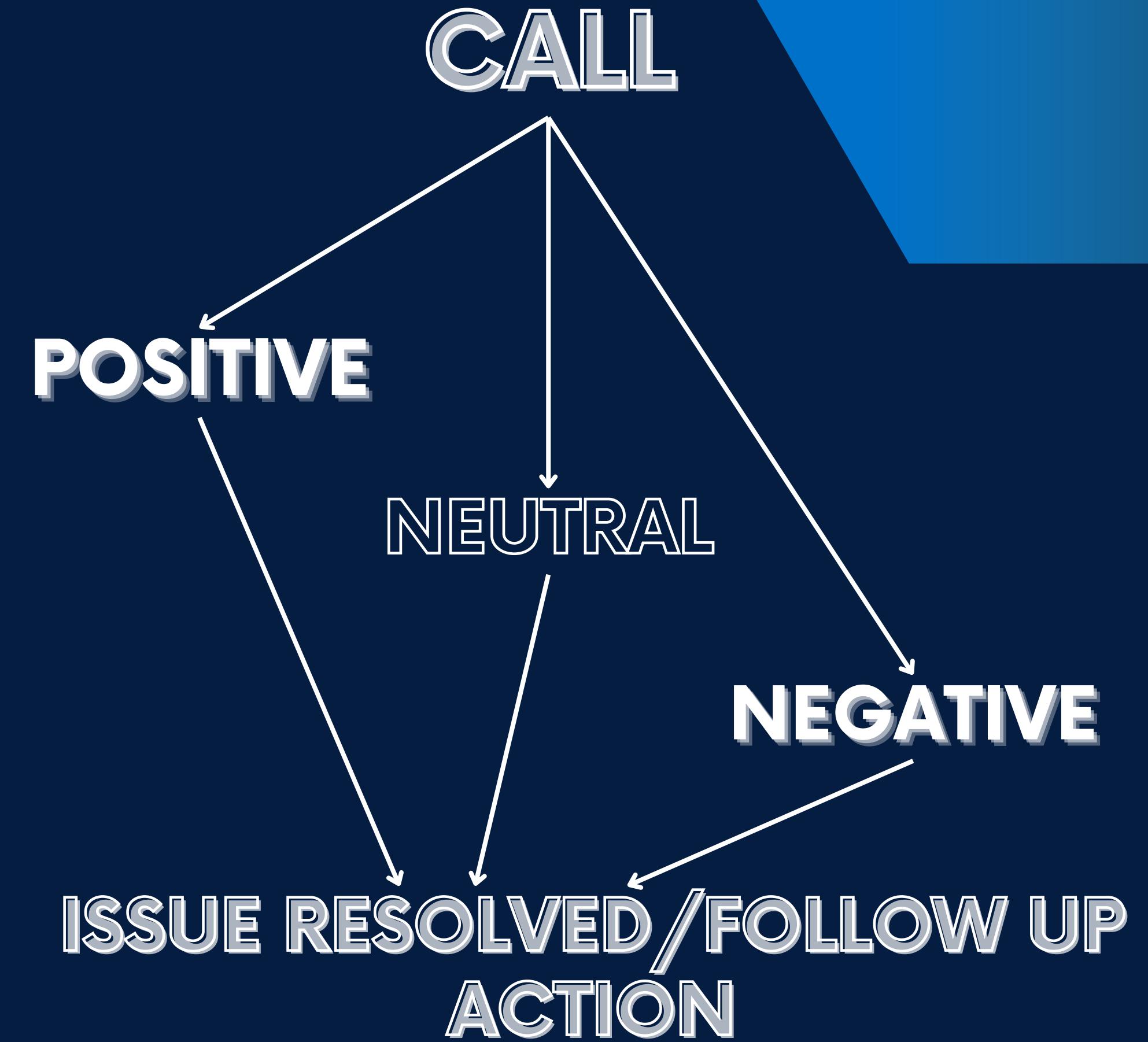
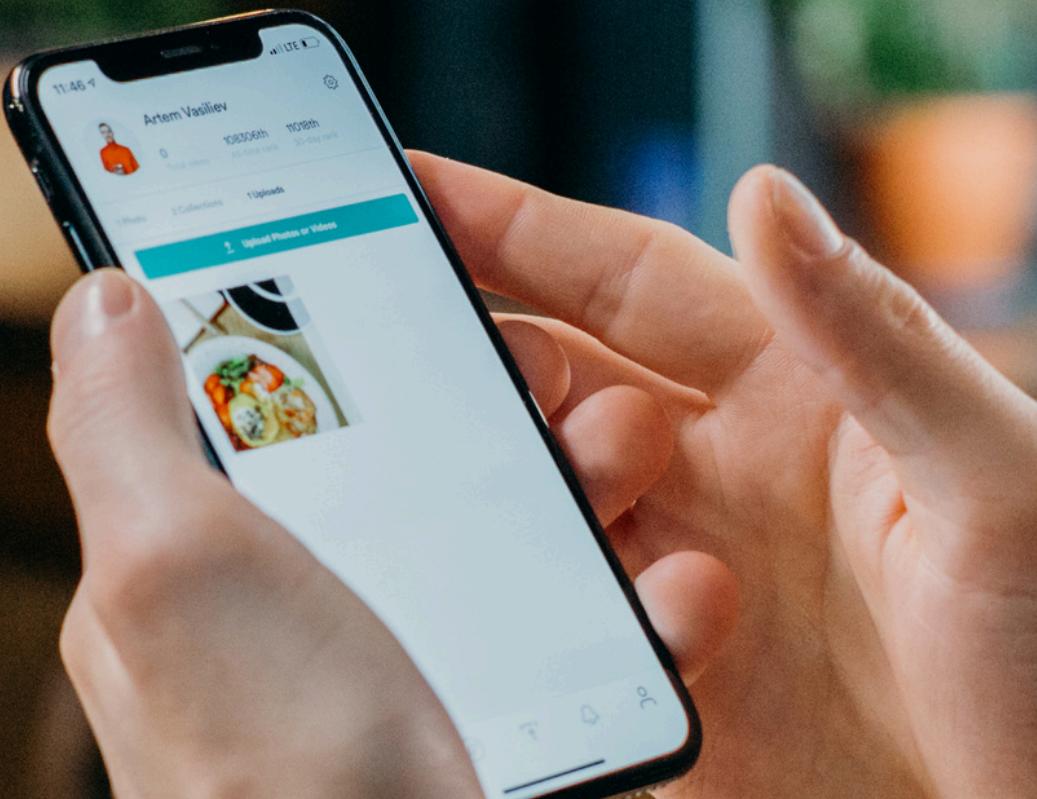
Determining whether the issue raised by the customer was resolved or requires a follow-up action.



SENTIMENT ANALYSIS

Automatically identifying the sentiment (positive, negative, or neutral) expressed by the customer during the call.







MODEL SELECTION

GPT-4

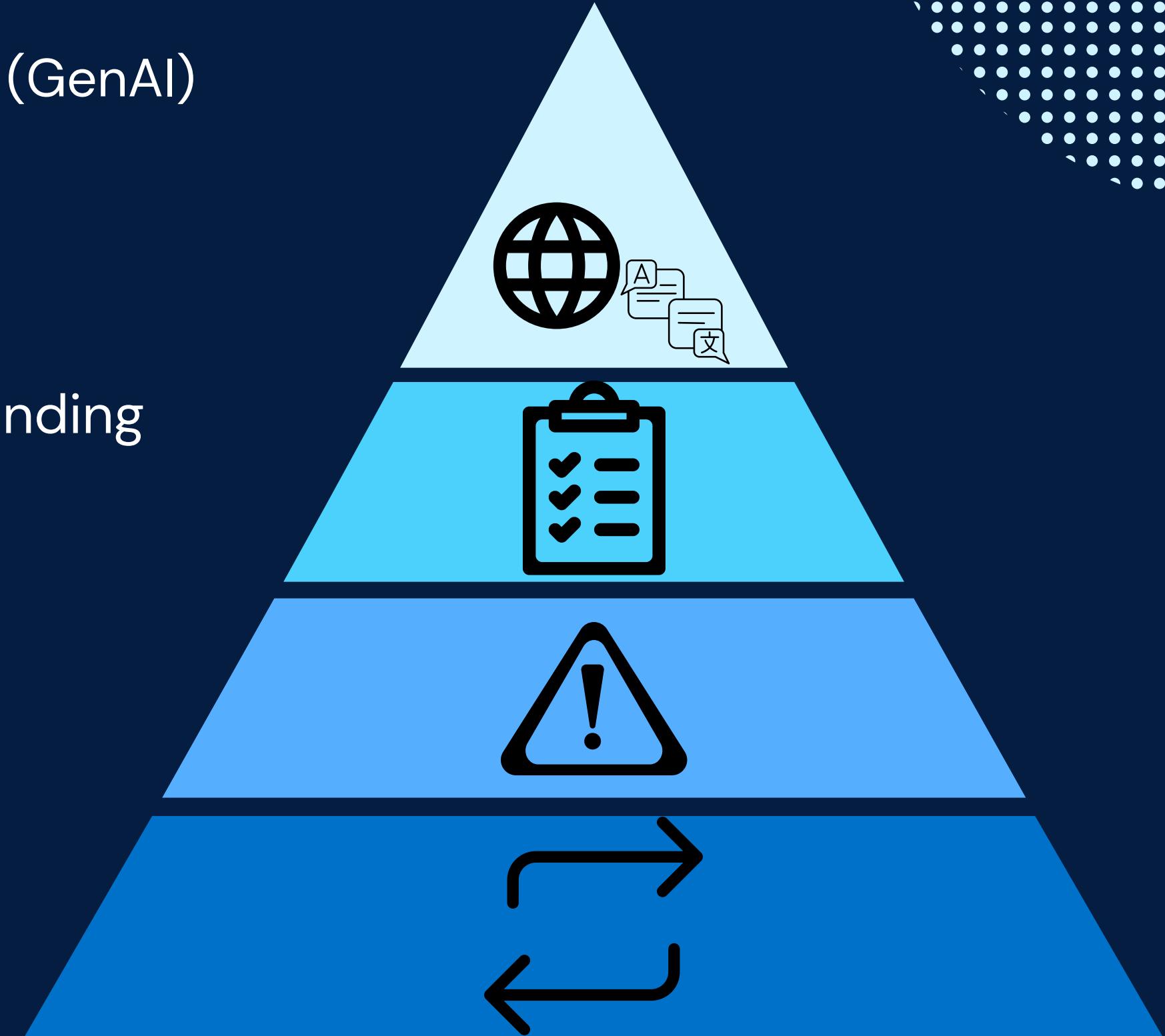
GPT-4 is a cutting-edge Generative AI (GenAI) model developed by OpenAI

01 Advanced Language Understanding

02 Multi-task Capabilities

03 Contextual Awareness

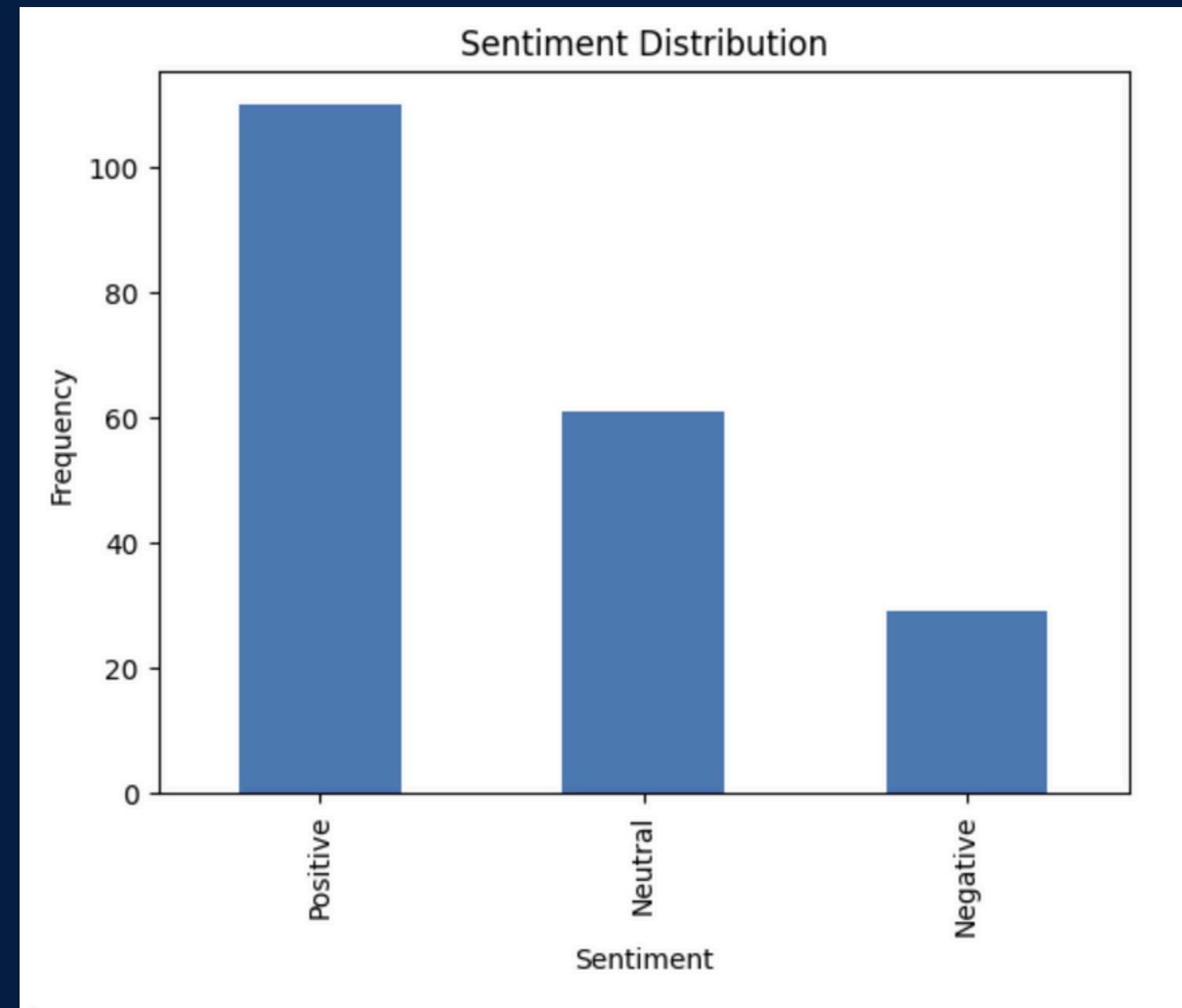
04 Adaptability



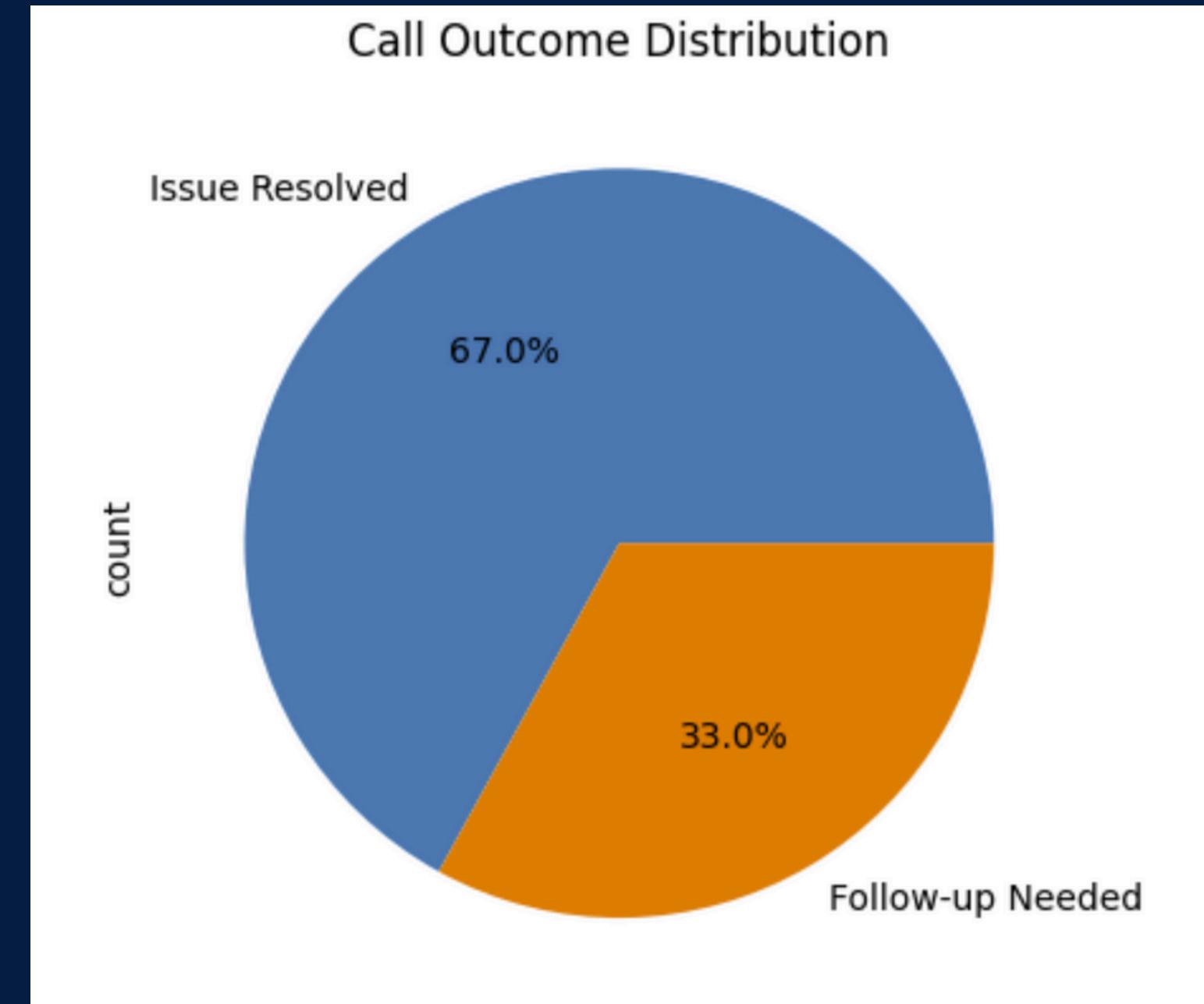


EDA

SENTIMENT



OUTCOME



Sentiment/Outcome Relationship

POSITIVE:

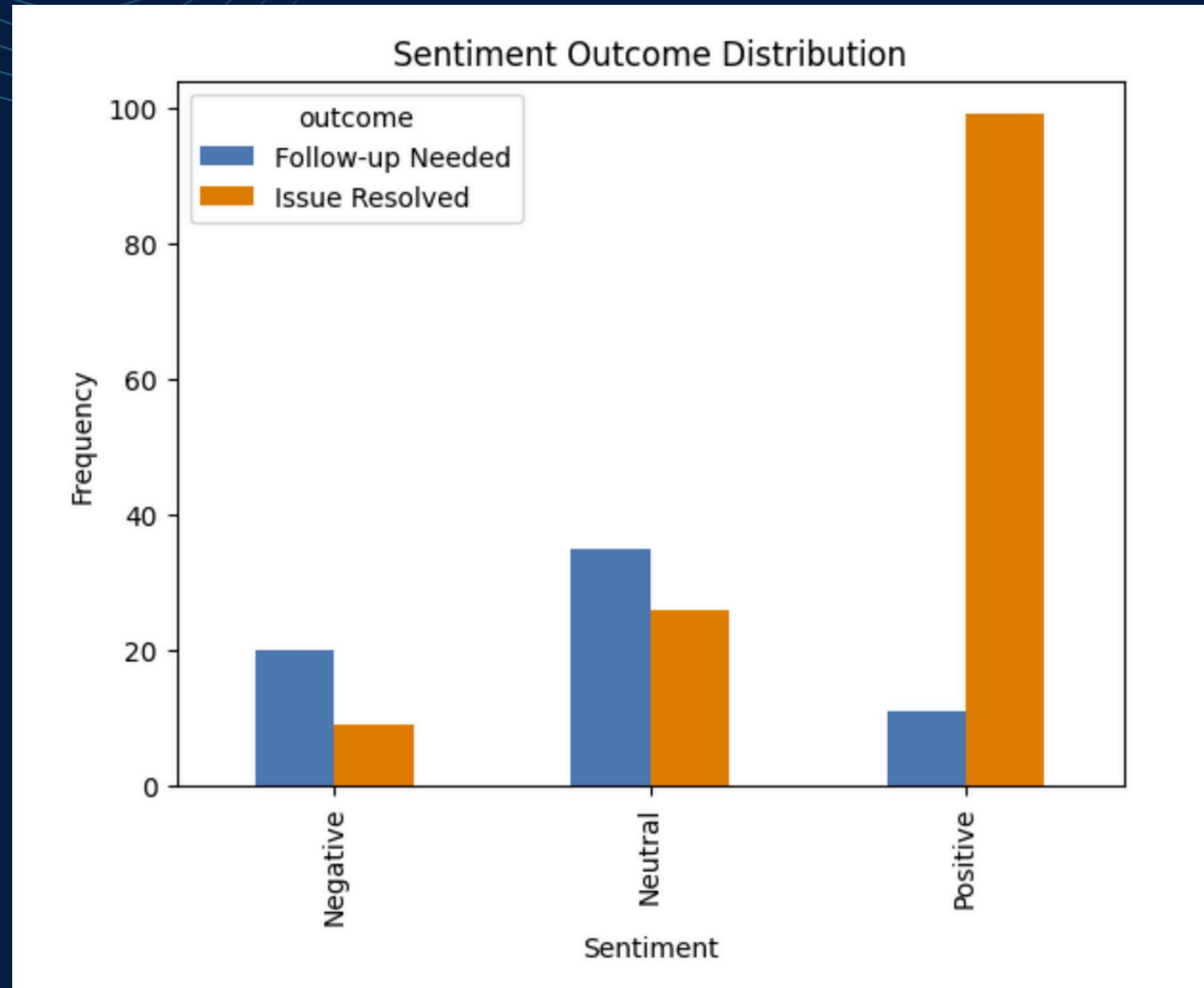
- THIS SHOWS THAT FOR POSITIVE SENTIMENT, ISSUE RESOLVED SUCCESSFULLY IS HIGH AS EXPECTED.

NEGATIVE:

- FOR NEGATIVE SENTIMENT, NUMBER OF FOLLOW UP NEEDED IS HIGH COMPARED TO ISSUE RESOLVED.

NEUTRAL:

- FOR NEUTRAL SENTIMENT, NUMBER OF FOLLOW UP NEEDED IS ALMOST SAME COMPARED TO ISSUE RESOLVED.
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Performance Evaluation Metrics

Step 1:

Taken subset of the dataset [10%]

Step 2:

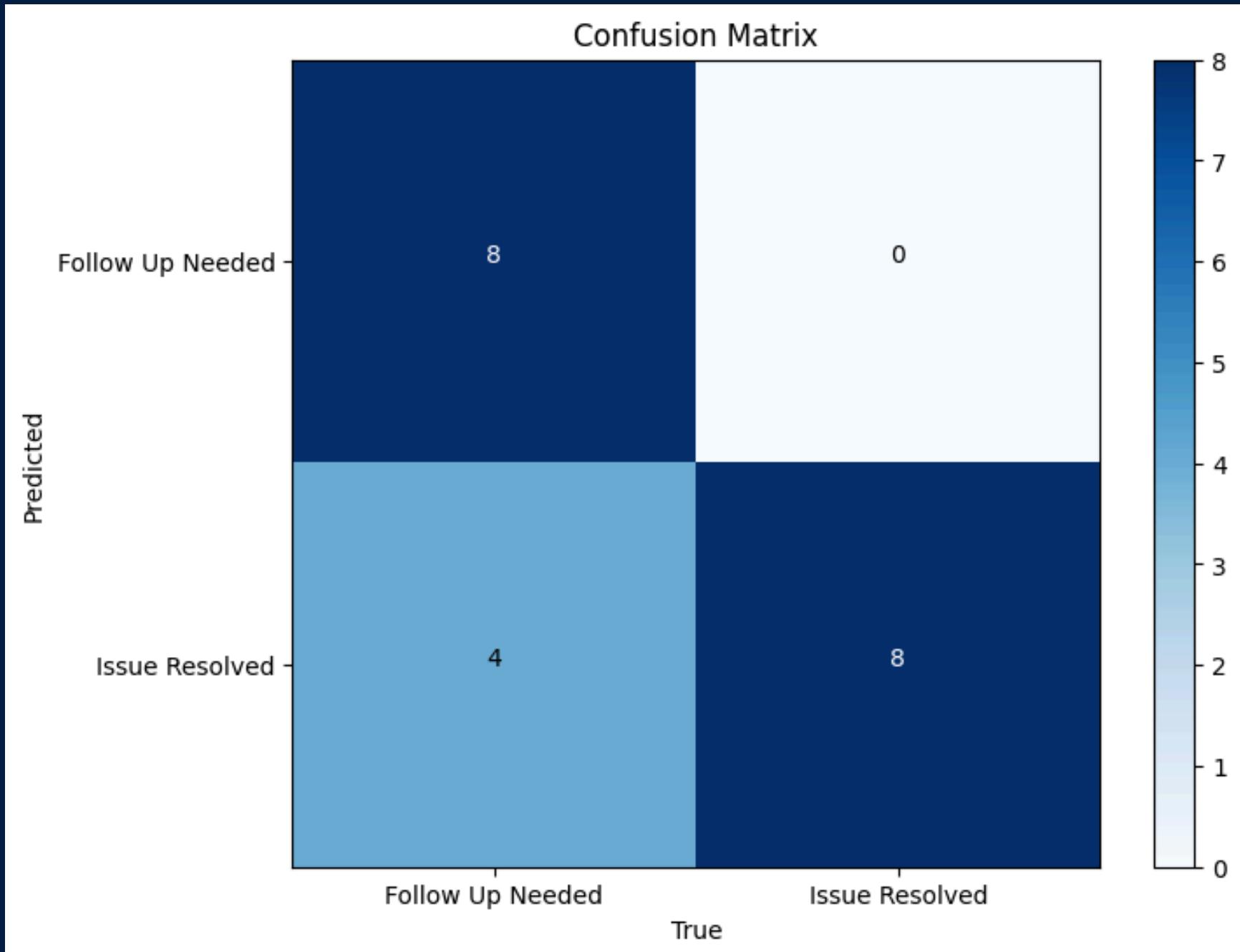
Manually predicted the sentiment and outcome using traditional method.

Step 3:

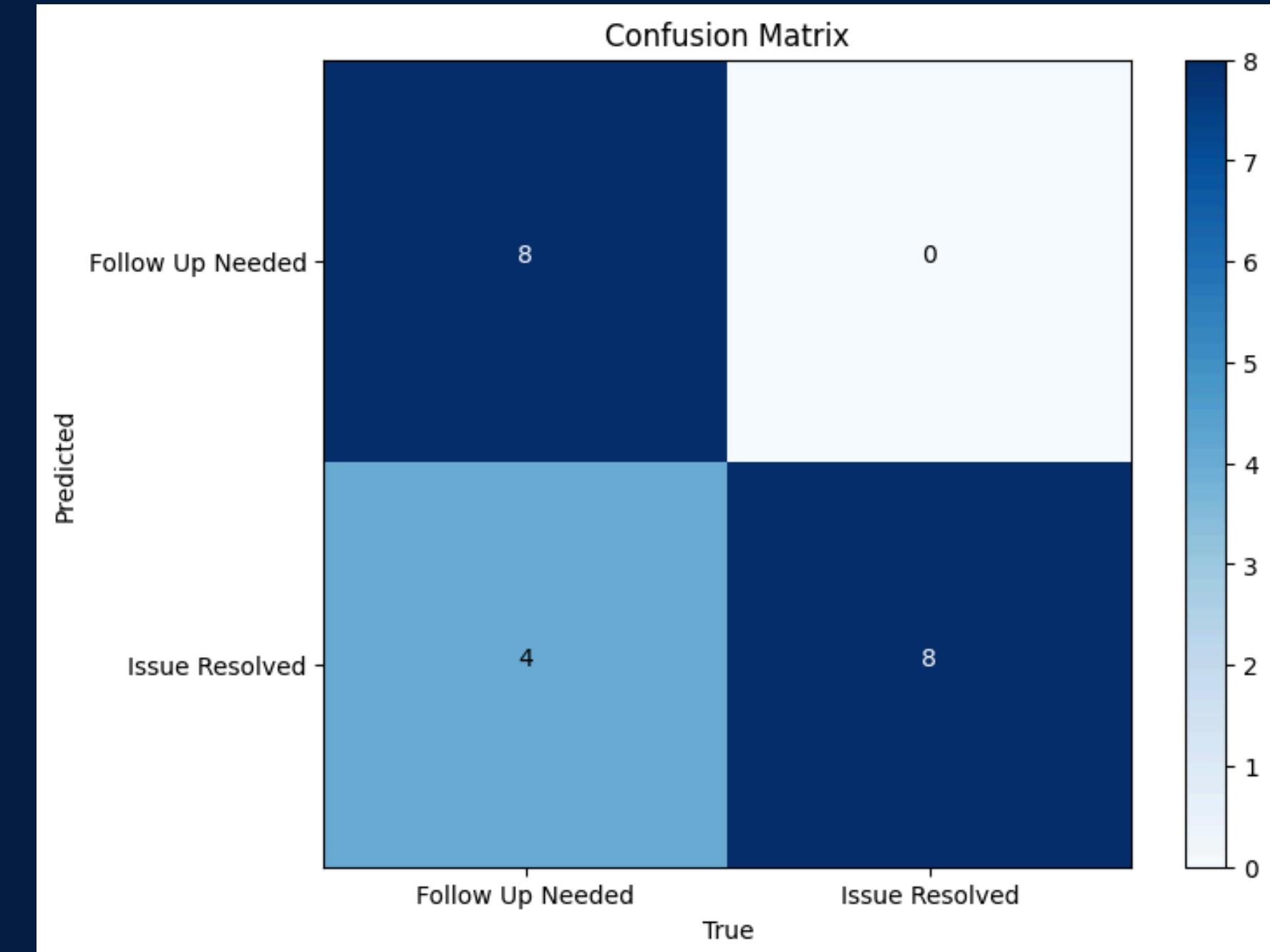
Accuracy of model = 80% for both sentiment and outcome

Performance Evaluation Metrics

Sentiment



Outcome





CONCLUSION AND NEXT STEPS

Conclusion

- Successful identification of sentiment and call outcomes using GenAI.
- Insights can guide business improvements in customer service.

Next steps

- Deploy the model in a real-time system.
- Further fine-tuning and training with larger datasets.

Thank you

