

# MANOAH SAMSON RAJ.P 311521243031

**Final Project** 



## PROJECT TITLE



# **AGENDA**

- 1. Requirements
- 2.<u>Usage</u>
- 3. Preprocessing
- 4. Fine-tuning
- 5. Deployment
- 6.Contributing
- 7.License



## PROBLEM STATEMENT

Developing an effective chatbot pipeline using the Transformers library to create a conversational agent capable of understanding and generating human-like responses.



3/21/2024 Annual Review

## PROJECT OVERVIEW

In this project, we aim to create a sophisticated chatbot pipeline using the Transformers library, a cutting-edge toolkit for natural language processing tasks. The chatbot pipeline involves preprocessing textual data, fine-tuning a pre-trained language model, and deploying the model for real-time inference.



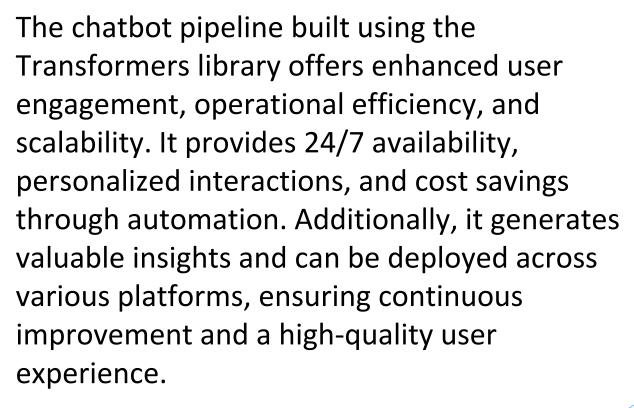
#### WHO ARE THE END USERS?

The end users of the chatbot pipeline include customers, website visitors, employees, mobile app users, social media users, students, patients, or anyone who engages with the chatbot for information, support, services, or entertainment purposes across various industries and domains.

3/21/2024 Annual Review

### YOUR SOLUTION AND ITS VALUE PROPOSITION

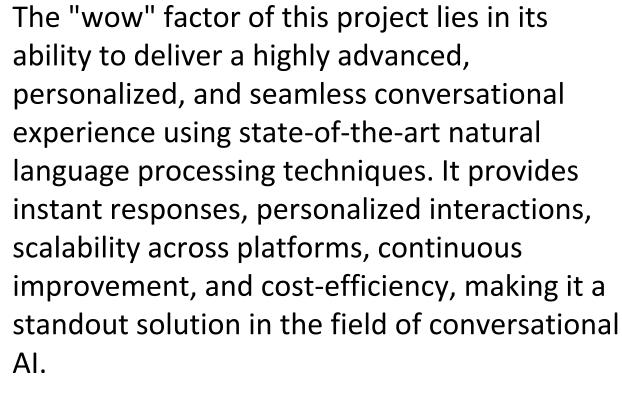




3/21/2024 Annual Review 7

## THE WOW IN YOUR SOLUTION







# MODELLING

the project utilizes fine-tuning of pre-trained language models, such as GPT or BERT, to specialize them for generating conversational responses. It leverages transfer learning principles, Seq2Seq modeling, and attention mechanisms to build an effective chatbot pipeline capable of understanding and generating human-like responses in a conversational context.

3/21/2024 Ar hual Review

# **RESULTS**

- 1. Enhanced Performance: Improved understanding and relevance of responses.
- Natural Language Understanding: Deeper comprehension of user queries and context.
- 3. Human-like Responses:

  Mimics human conversational behavior with fluency.
- 4. Scalable Deployment:

  Deployable across various platforms and channels.
- 5. Cost-Efficiency:

  Reduces operational costs through automation.
- 6. Continuous Improvement:

  Adapts and improves over time with user interactions.

