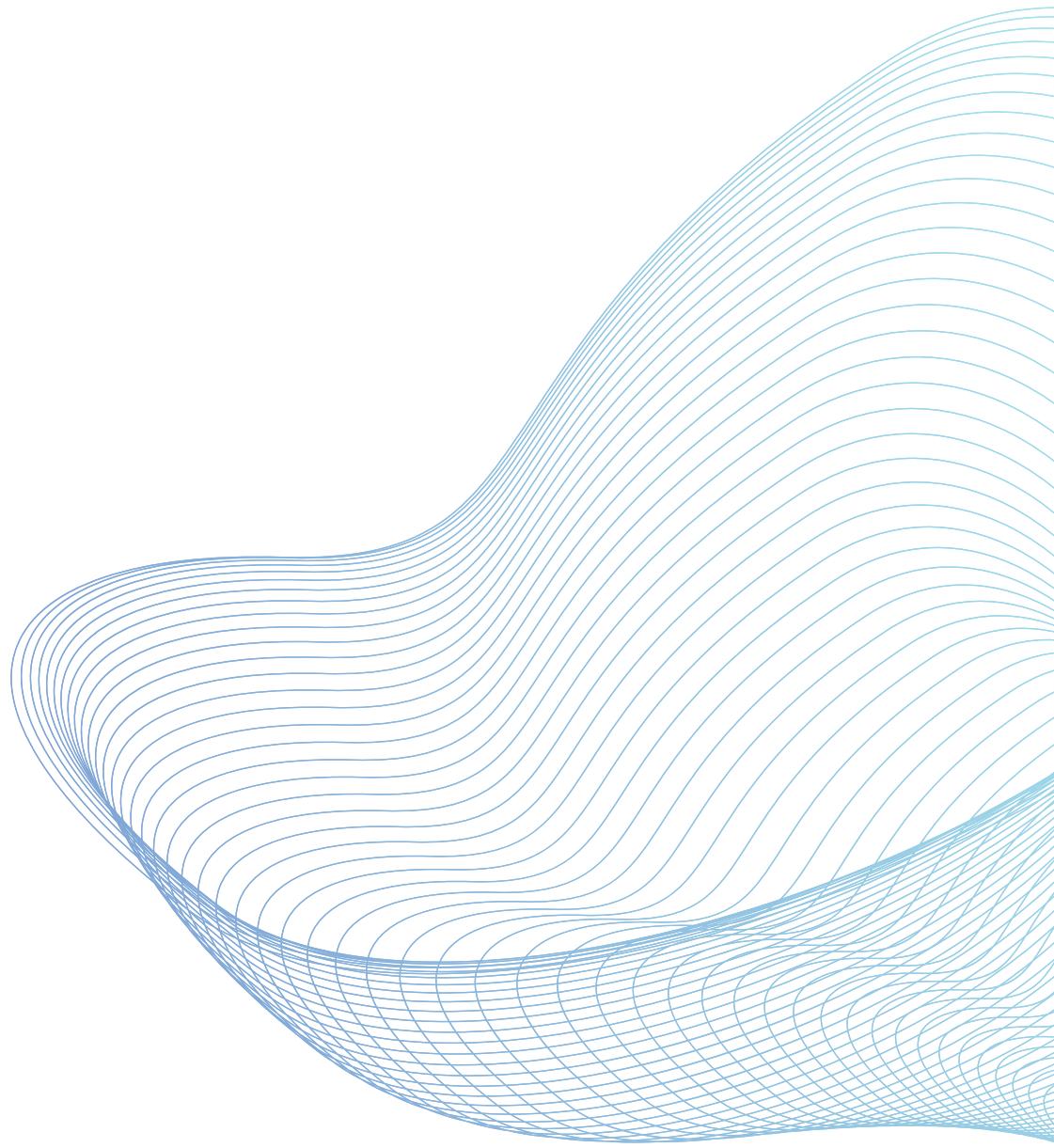


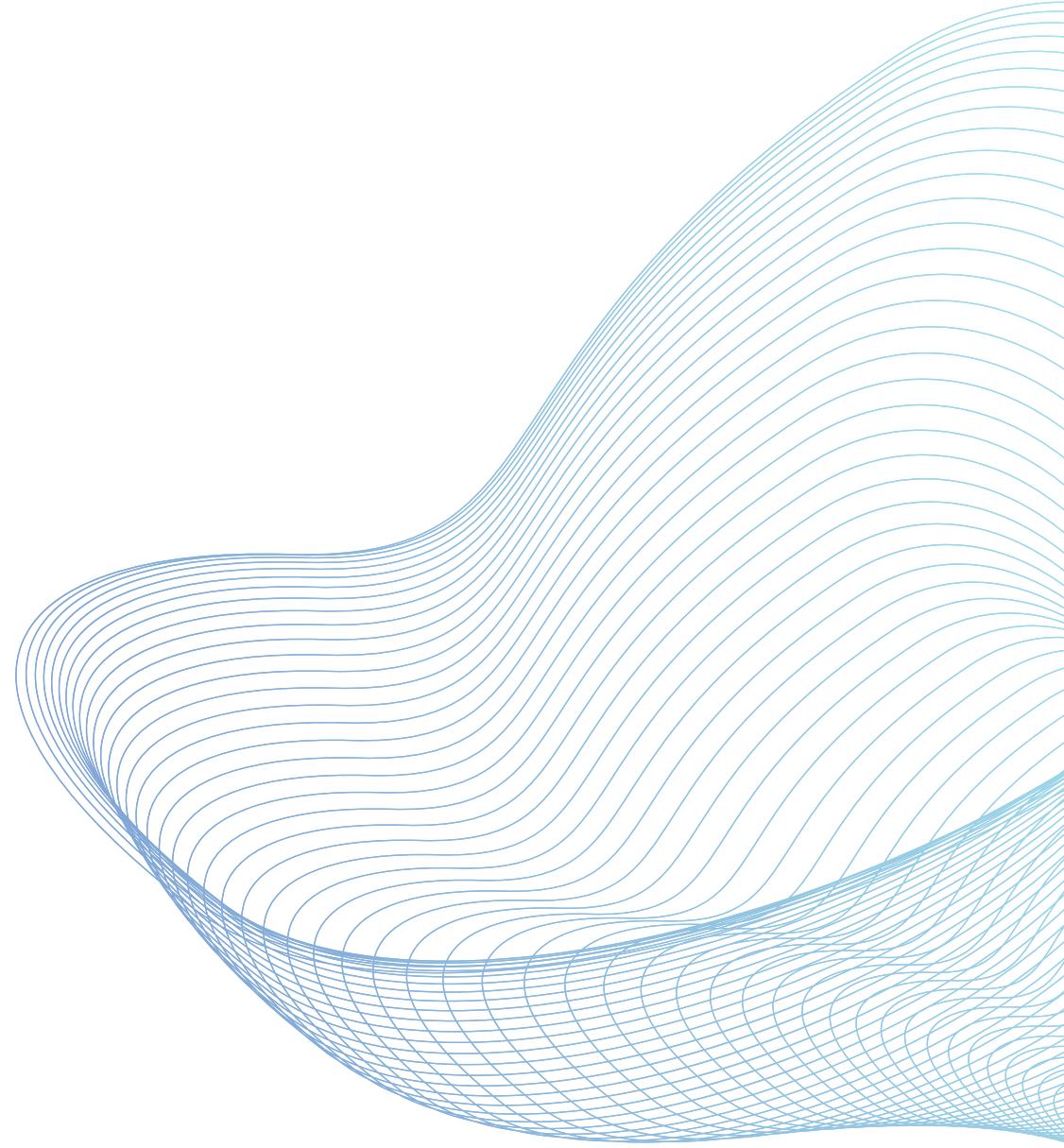
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FINAL PROJECT



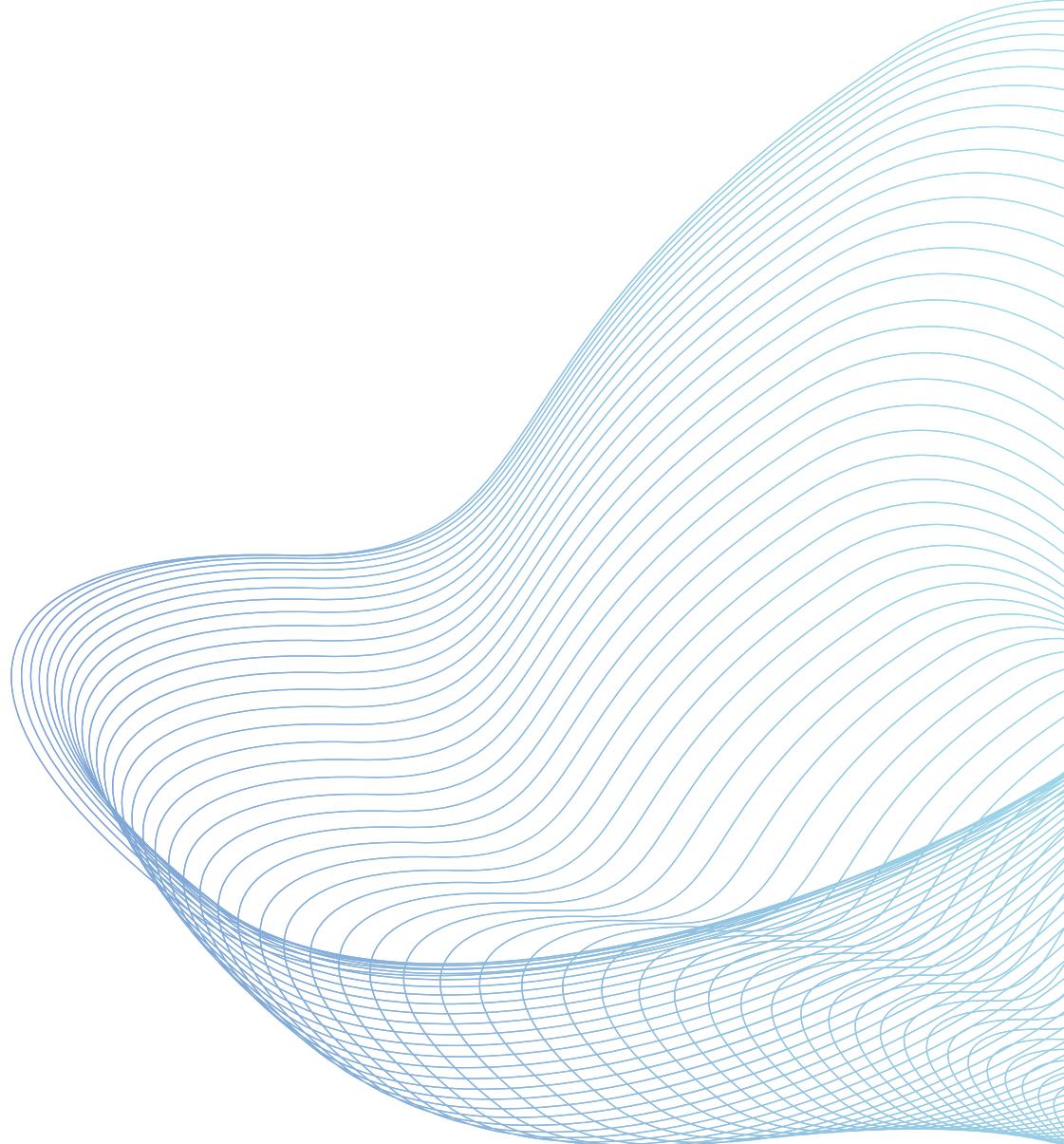
CHATGPT

WITH MINIMAL RESOURCE



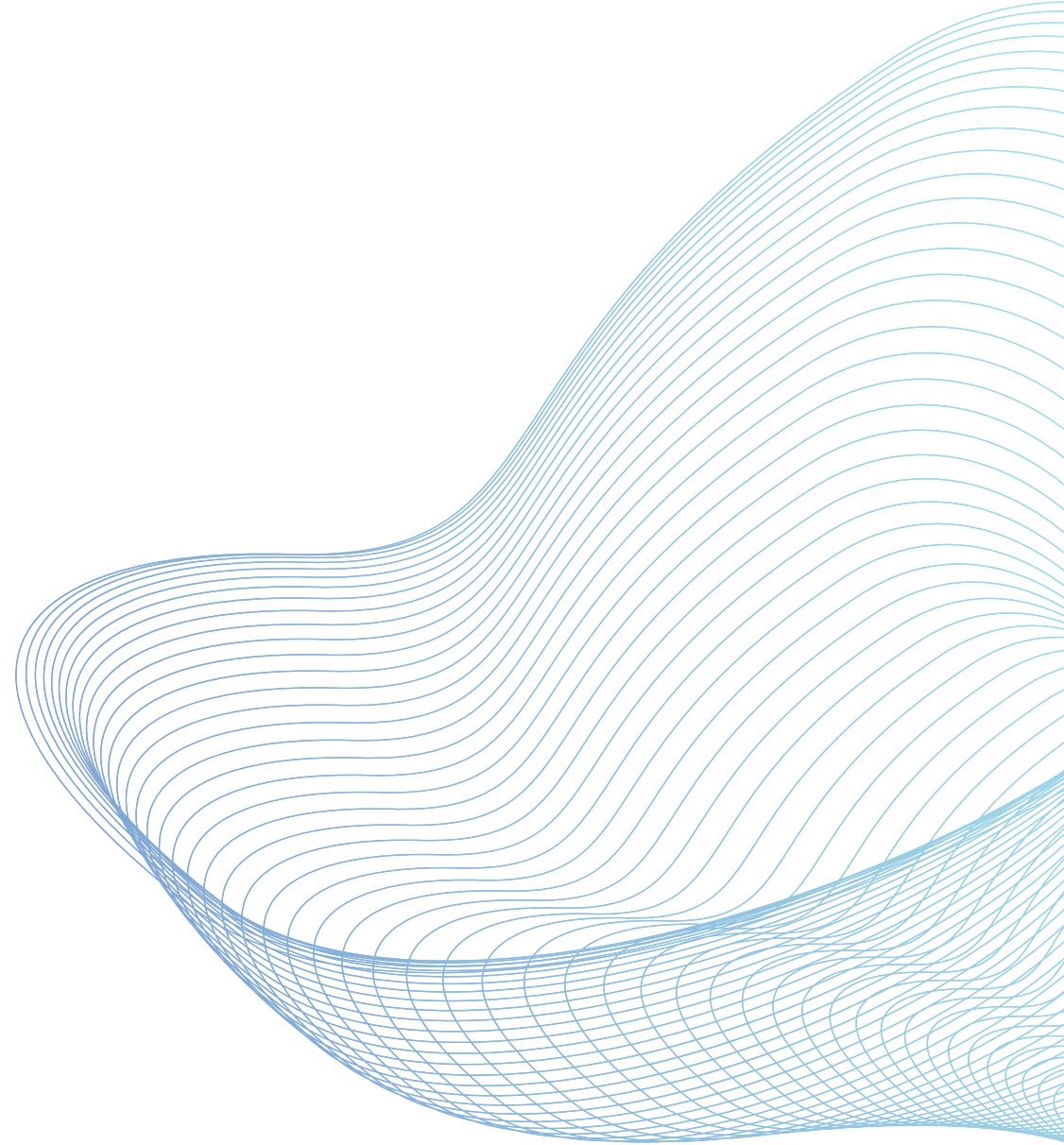
AGENDA

- PROBLEM STATEMENT
- OVERVIEW
- END USERS
- SOLUTION
- MODELLING
- RESULTS



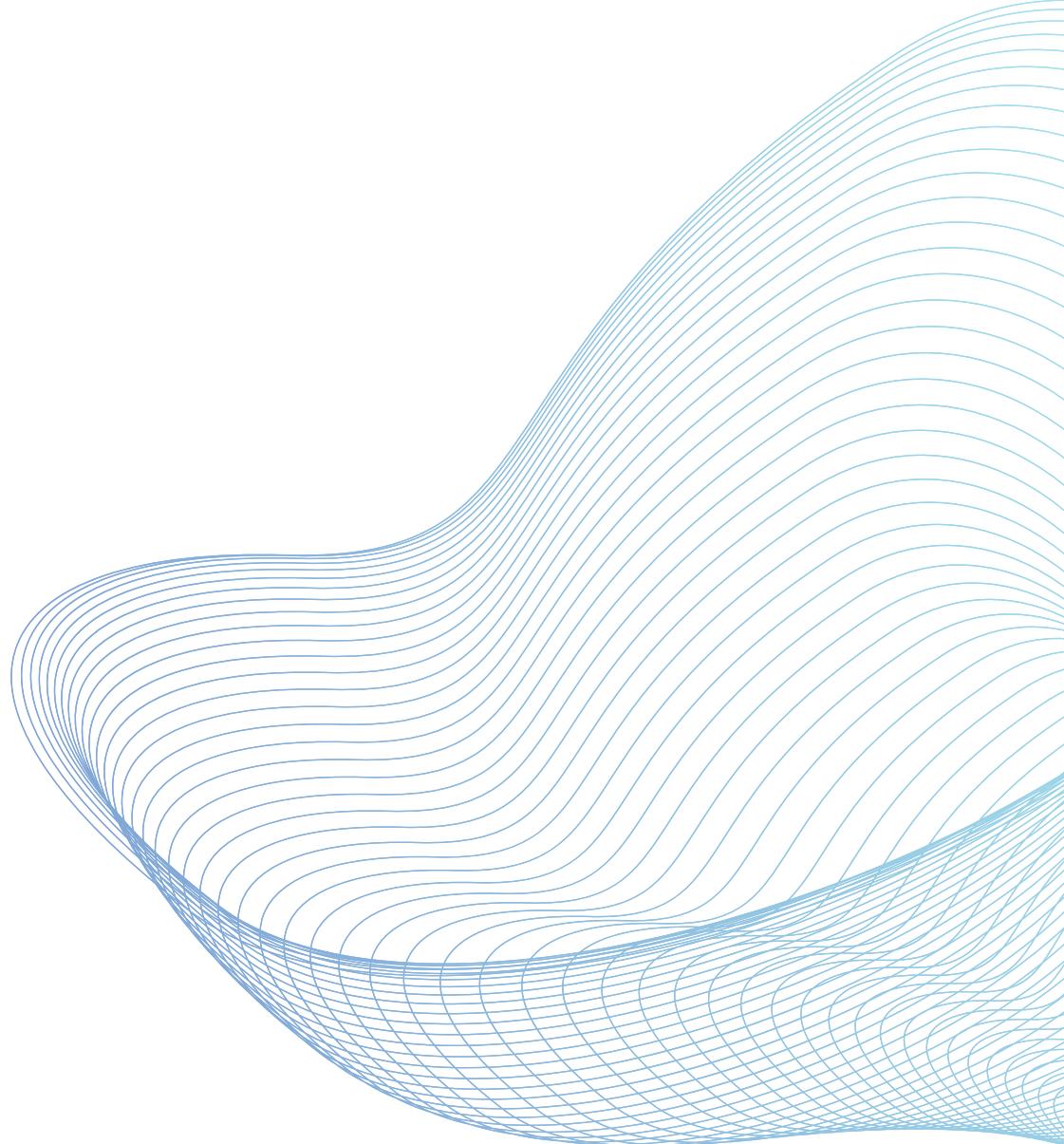
PROBLEM STATEMENT

**BUILD A CHATBOT WITH MINIMAL
RESOURCE**



OVERVIEW

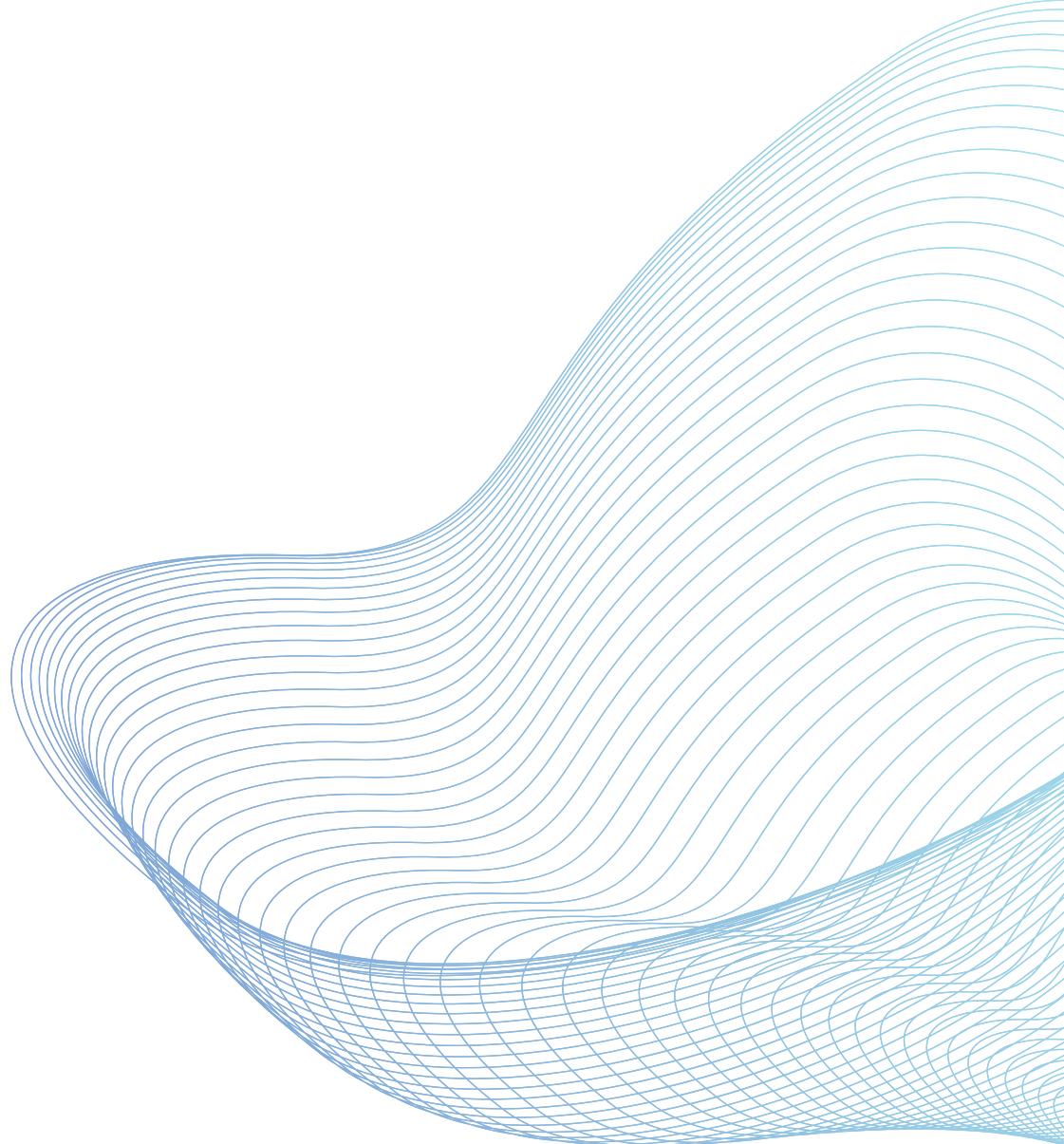
**THE AI CONVERSATIONAL
ASSISTANT DEVELOPMENT PROJECT
AIMS TO CREATE AN INTELLIGENT
CHATBOT CAPABLE OF PROVIDING
EFFICIENT AND PERSONALIZED
ASSISTANCE TO USERS IN VARIOUS
DOMAINS.**



END USERS

THE END USERS OF A CHATBOT CAN VARY DEPENDING ON ITS PURPOSE AND FUNCTIONALITY.

- CUSTOMERS/CONSUMERS
- WEBSITE VISITORS
- MOBILE APP USERS
- STUDENTS/LEARNERS
- TRAVELERS



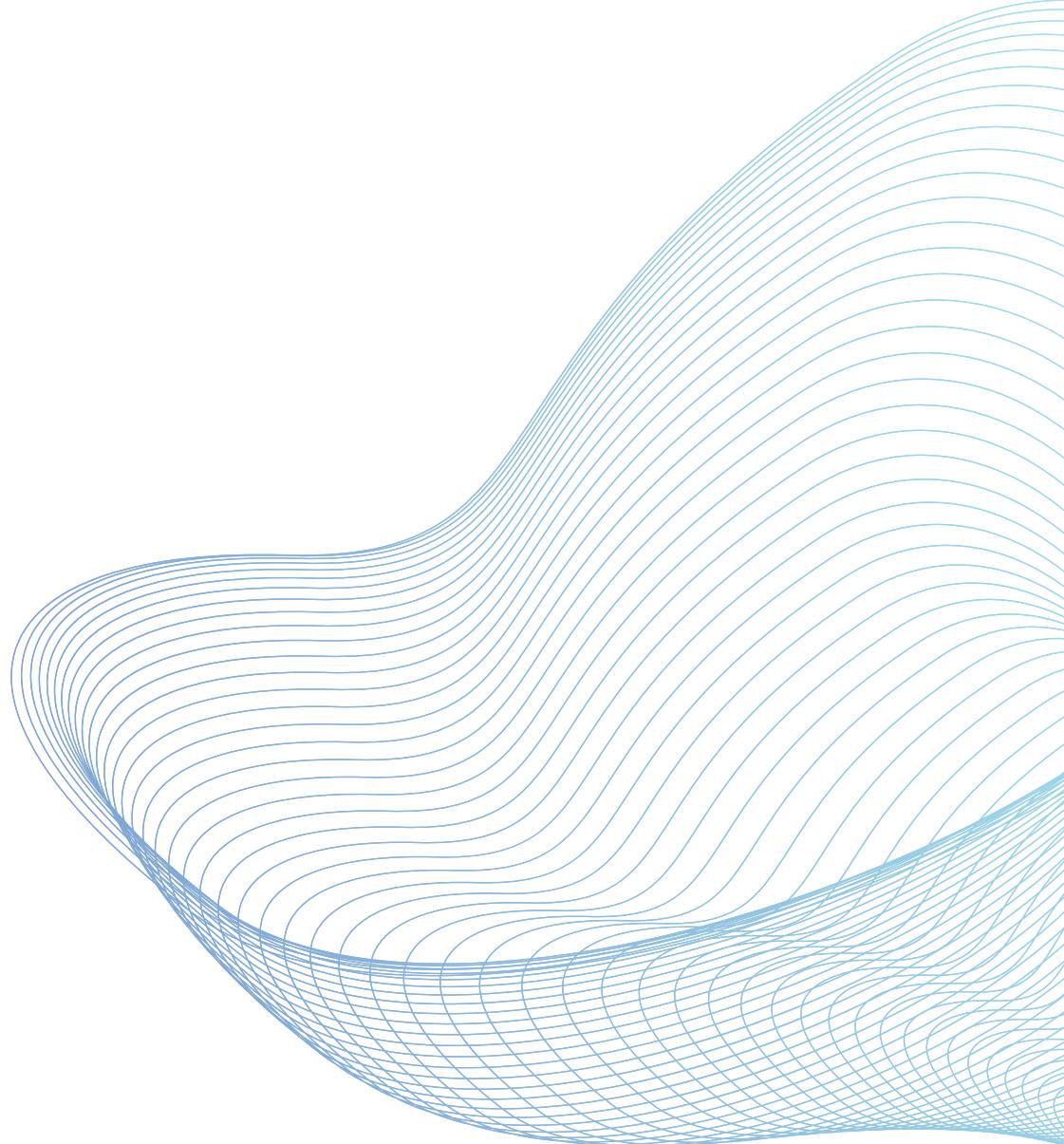
SOLUTION

BUILDING A SIMPLE CHATBOT CAN BE ACCOMPLISHED USING VARIOUS PROGRAMMING LANGUAGES AND FRAMEWORKS. FOR MORE ADVANCED FUNCTIONALITIES LIKE UNDERSTANDING NATURAL LANGUAGE, CONTEXT, OR INTEGRATING WITH APIs FOR MORE DYNAMIC RESPONSES, WE MIGHT NEED TO EXPLORE MORE ADVANCED LIBRARIES OR FRAMEWORKS LIKE RASA, DIALOGFLOW, OR MICROSOFT BOT FRAMEWORK. HERE WE HAVE USED NLTK LIBRARY AND TRAINED THE BOT WITH BASIC RESPONSES.



MODELLING

- TRAINING WITH ML ALGORITHMS, NLP MODELS
- FINE-TUNING MODEL PARAMETERS
- IMPORT REQUIRED LIBRARIES
- TRAIN WITH MINIMAL RESPONSES
- CREATE CHATBOT



DEPLOYMENT

22:26 🌐 ⚡ 🔍 G 85%

X Chatterbox - Colaboratory colab.research.google.com

CO Chatterbox ☆

File Edit View Insert Runtime Tools Help All changes saved Comment Share Colab AI

+ Code + Text RAM Disk

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import nltk
from nltk.chat.util import Chat, reflections

Define some reflections to transform input (e.g., "I am" -> "you are")
reflections = {
 "i am": "you are",
 "i was": "you were",
 "i": "you",
 "i'm": "you are",
 "i'd": "you would",
 "i've": "you have",
 "i'll": "you will",
 "my": "your",
 "you are": "I am",
 "you were": "I was",
 "you've": "I have",
 "you'll": "I will",
 "your": "my",
 "yours": "mine",
 "you": "me",
 "me": "you",
}

Define some simple patterns and responses
pairs = [
 [r"my name is (.*)",
 ["Hello %1, How are you today?"]],
 [r"what is your name?",
 ["My name is Chatterbox and I'm a chatterbox."]],
 [r"how are you ?",
 ["I'm doing good\nHow about You ?"]],
 [r"Sorry (.*)",
 ["Don't apologize, it's okay."]],
 [r"(.*) (good|great|fine)",
 ["That's good to hear!"]],

The screenshot shows a Jupyter Notebook interface titled "Chatterbox - Colaboratory" from "colab.research.google.com". The code cell contains a Python script for creating a ChatBot. The script defines a function `chatbot()` that prints a greeting and initializes a `Chat` object with pairs and reflections. It then enters a loop to converse with the user. The user input is shown as a series of messages starting with '>'. The code uses regular expressions for pattern matching and lists for reflections.

```
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Comment Share Colab AI RAM Disk
+ Code + Text
[{"text": "How are you?", "is_user": true}, {"text": "[\"I'm doing good\\nHow about You ?\",]", "is_user": false}, {"text": "r\"sorry (.*)\",", "is_user": true}, {"text": "[\"Don't apologize, it's okay.\",]", "is_user": false}, {"text": "r\"(.*) (good|great|fine)\",", "is_user": true}, {"text": "[\"That's good to hear!\",]", "is_user": false}, {"text": "r\"(.*) age?\",", "is_user": true}, {"text": "[\"I am a computer program and I don't have an age.\",]", "is_user": false}, {"text": "r\"quit\",", "is_user": true}, {"text": "[\"Bye, take care. See you soon :) \", \"It was nice talking to you. Goodbye!\"]", "is_user": false}], [{}], [{"text": "# Create a ChatBot using the defined patterns and reflections", "is_user": false}, {"text": "def chatbot():", "is_user": false}, {"text": "    print(\"Hi, I'm ChatBot! How can I help you today?\")", "is_user": false}, {"text": "    chat = Chat(pairs, reflections)", "is_user": false}, {"text": "    chat.converse()", "is_user": false}, {"text": "# Main function to run the chatbot", "is_user": false}, {"text": "if __name__ == \"__main__\":", "is_user": false}, {"text": "    nltk.download(\"punkt\", quiet=True)", "is_user": false}, {"text": "    chatbot()", "is_user": false}], [{"text": "Hi, I'm ChatBot! How can I help you today?", "is_user": false}, {"text": ">How are you?", "is_user": true}, {"text": "I'm doing good", "is_user": false}, {"text": "How about You?", "is_user": false}, {"text": ">Iam fine", "is_user": true}, {"text": "That's good to hear!", "is_user": false}, {"text": ">[ ]", "is_user": true}], [{"text": "Executing (2m 1s) <cell line: 63> > chatbot() > converse() > raw_input() > _input_request() > select()", "is_user": false}]]
```

RESULTS

THE RESULT OF A CHATBOT BUILDING PROJECT IS A FULLY FUNCTIONAL, DEPLOYABLE CHATBOT SOLUTION THAT MEETS THE SPECIFIED REQUIREMENTS AND OBJECTIVES, PROVIDING VALUE TO BOTH THE ORGANIZATION AND ITS USERS.

<https://github.com/Jancy161/Gen-AI-nm.git>

