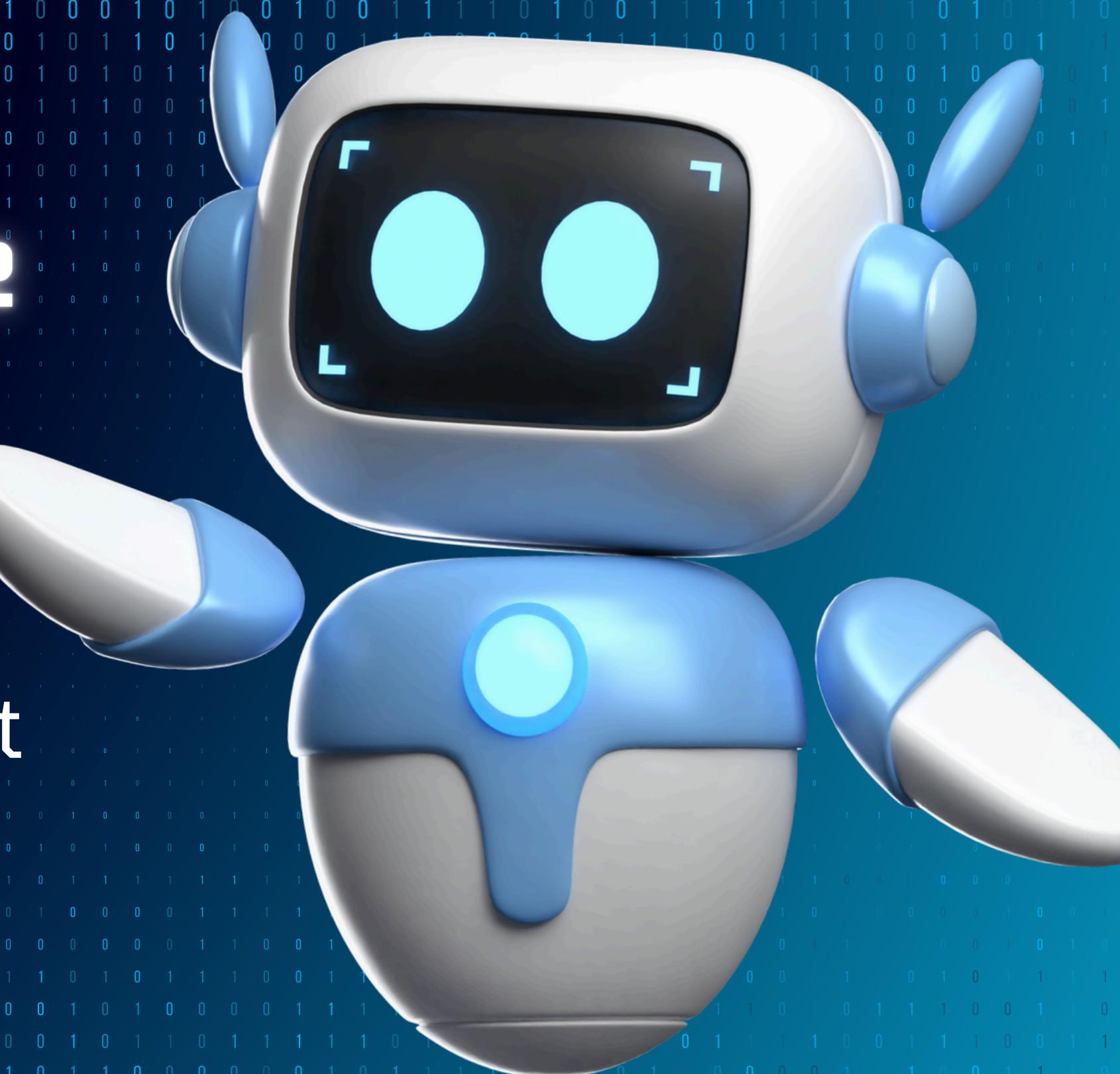


# BREASTABOT: YOUR BREAST CANCER AWARENESS CHATBOT

An AI-powered assistant for  
spreading knowledge and support

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# 1

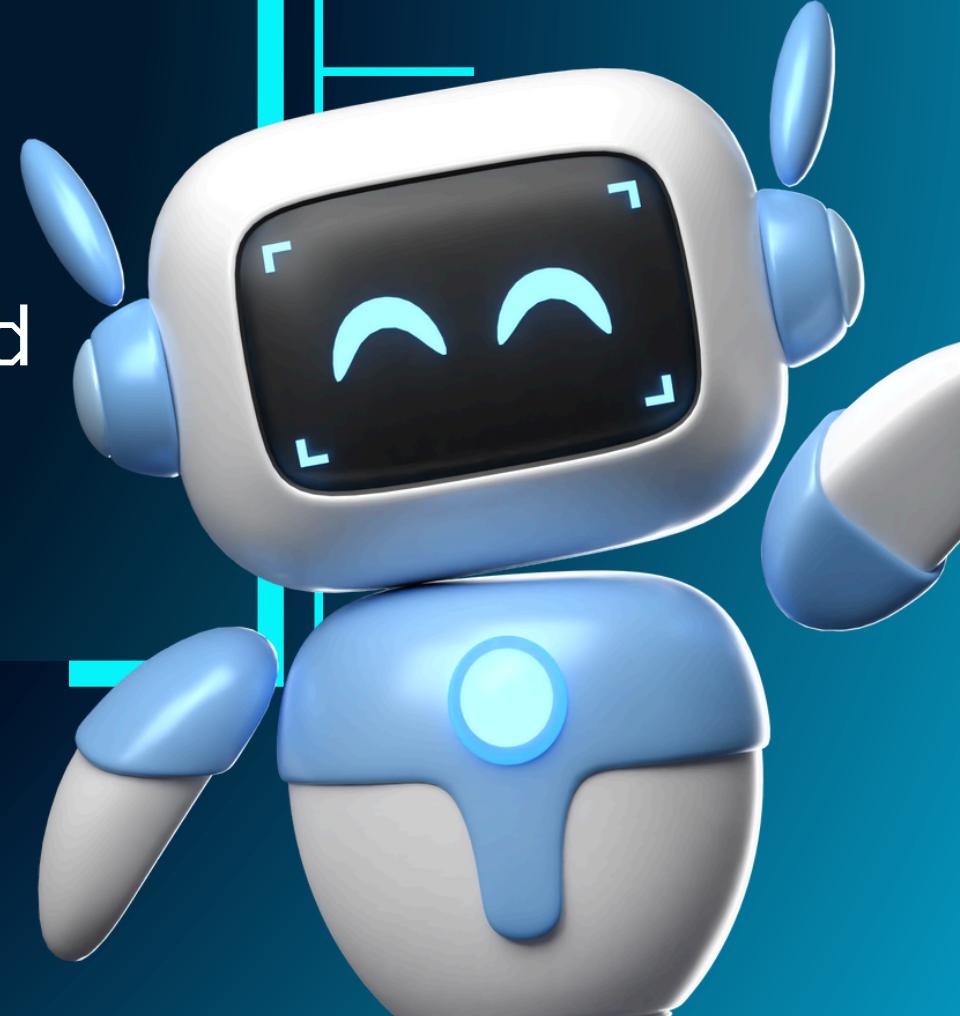
# INTRODUCTION

What is BreastaBot?

- A simple, Python-based chatbot that provides information about breast cancer.
- Answers common questions like symptoms, risk factors, and treatment options.

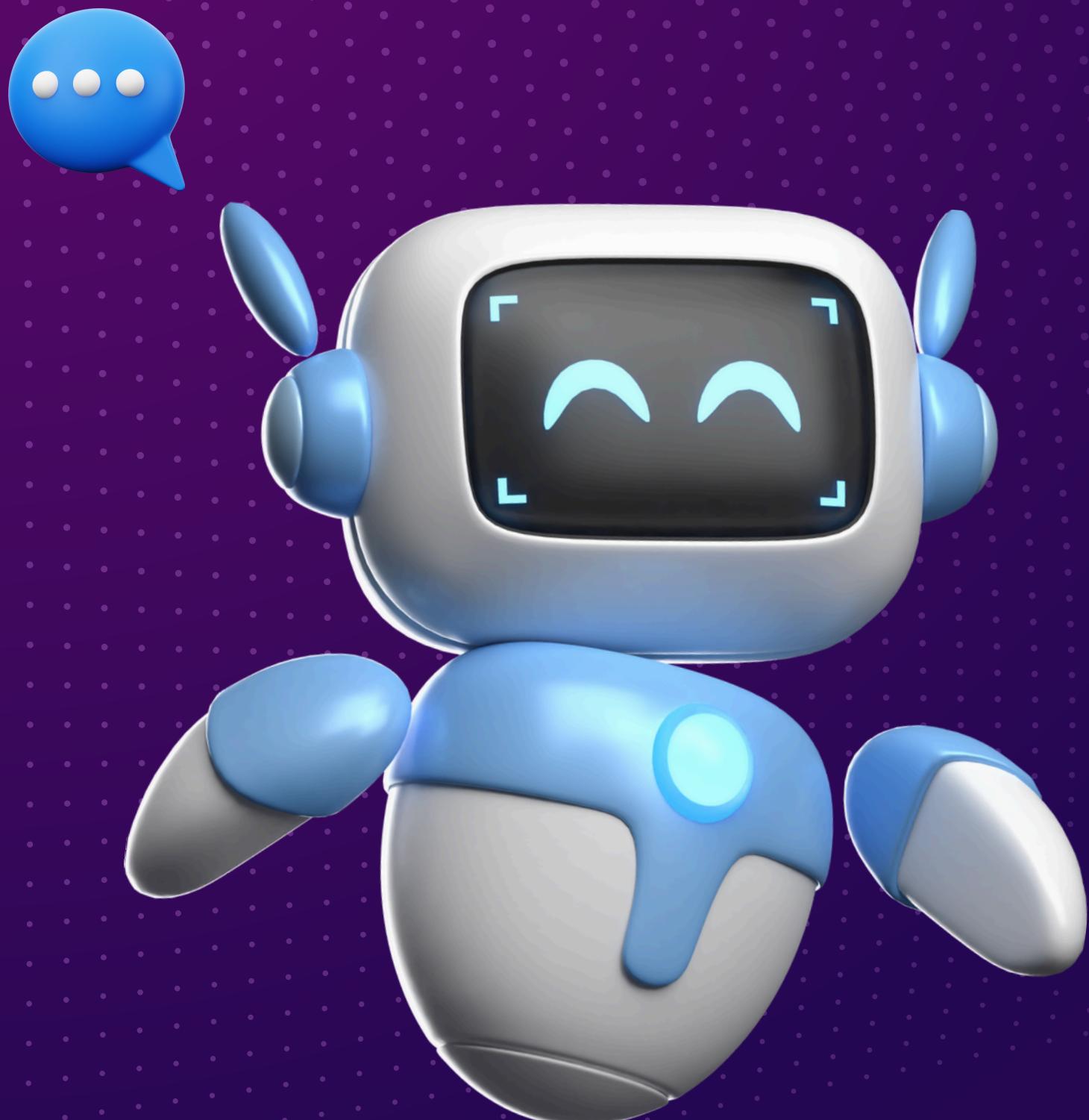
Objective:

To create an accessible tool for raising awareness and offering support for breast cancer.



2

## HOW IT WORKS

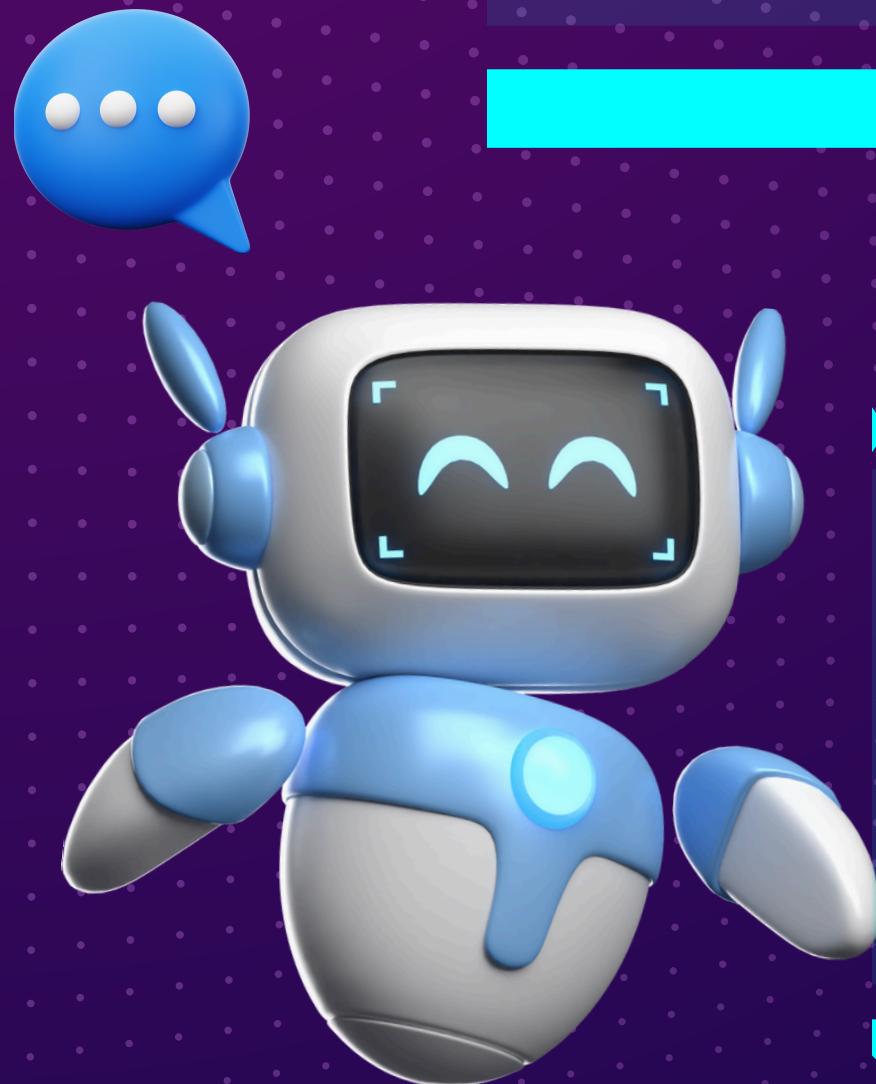


### JSON DATA STORAGE

- ALL RESPONSES ARE STORED IN A JSON FILE.
- EACH QUESTION OR TOPIC (E.G., "SYMPTOMS") HAS A CORRESPONDING KEY IN THE JSON FILE.

## PYTHON CODE LOGIC

- READS THE JSON FILE AND MATCHES USER INPUT TO PRE-DEFINED KEYS.
- IF NO MATCH IS FOUND, PROVIDES A FALBACK RESPONSE:
- "I'M SORRY, I DIDN'T UNDERSTAND THAT. PLEASE TRY ASKING SOMETHING ELSE."



## TERMINAL INTERFACE

- USERS INTERACT WITH THE CHATBOT BY TYPING THEIR QUESTIONS INTO THE TERMINAL.
- RESPONSES ARE DISPLAYED INSTANTLY.

### 3

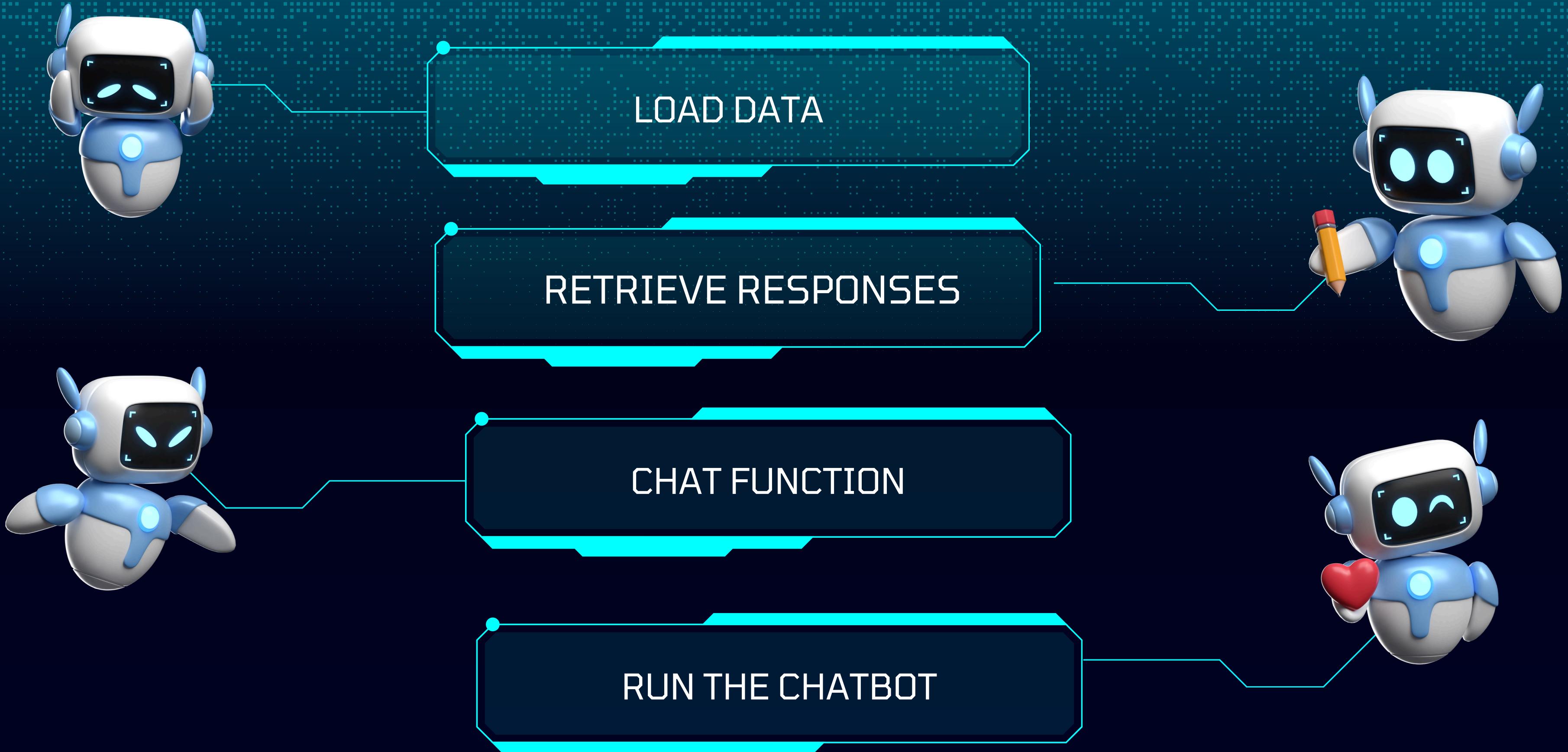
## JSON FILE STRUCTURE

```
{  
  "welcome": "Hello! I'm Breastabot, your assistant for breast cancer  
  awareness.",  
  "symptoms": "Common symptoms include a lump in the breast or  
  underarm...",  
  "risk_factors": "Risk factors include age, family history, and lifestyle factors...",  
  "treatment_options": "Treatment options vary but may include surgery and  
  chemotherapy...",  
  "resources": "Here are some trusted resources: American Cancer Society,  
  BreastCancer.org..."  
}
```

### KEY FEATURES:

- EACH KEY CORRESPONDS TO A TOPIC/QUESTION.
- EASY TO UPDATE OR EXPAND WITH NEW INFORMATION.

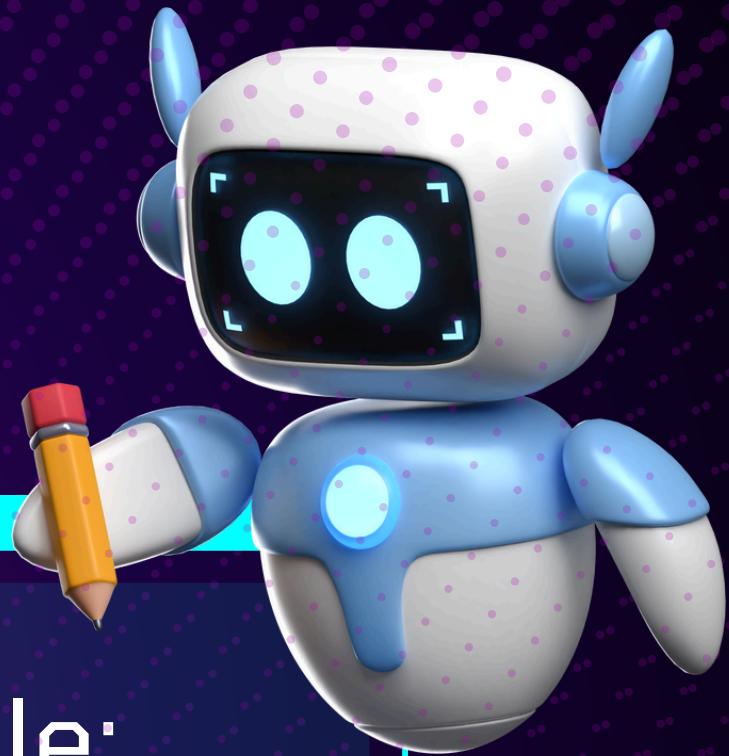
# 4. CODE WALKTHROUGH



1

## LOAD DATA

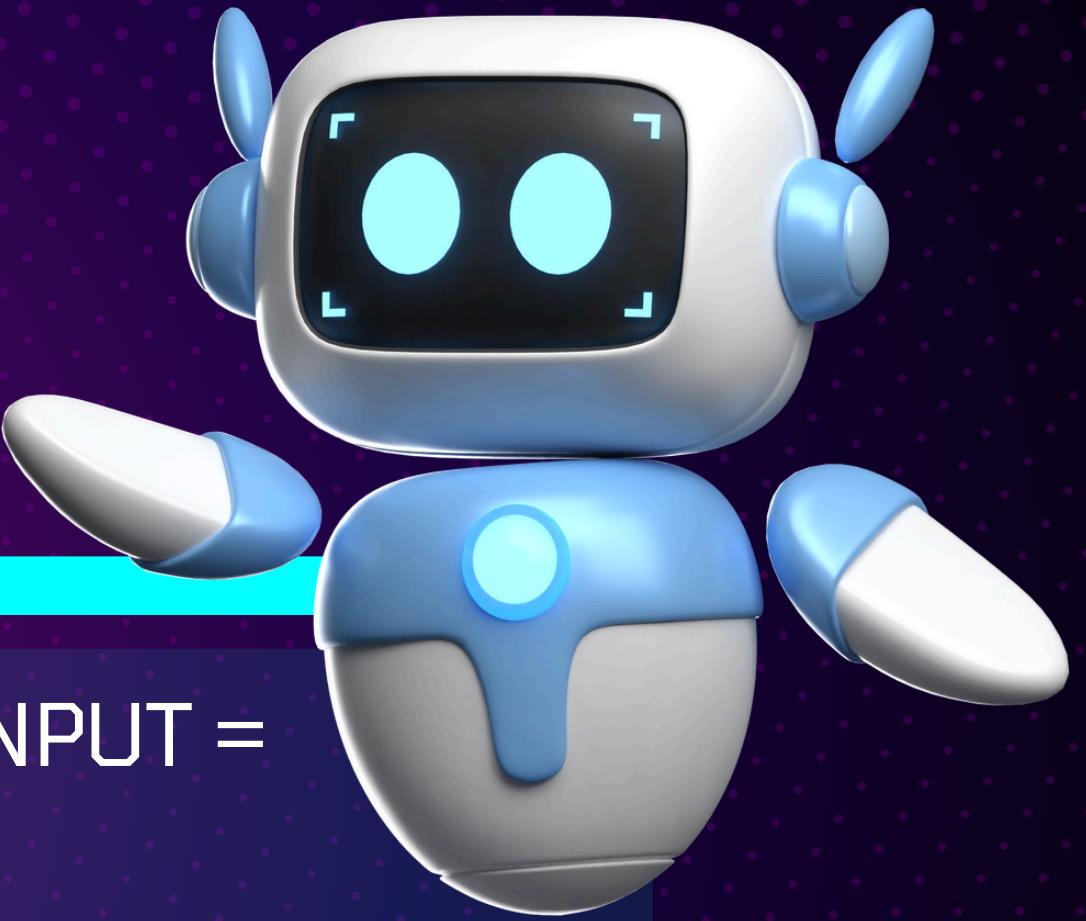
```
with open("Breast Cancer.json", "r") as file:  
    chatbot_data = json.load(file)
```



2

## RETRIEVE RESPONSES

```
DEF GET_RESPONSE(USER_INPUT): USER_INPUT =  
    USER_INPUT.LOWER() RETURN  
    CHATBOT_DATA.GET(USER_INPUT, "I'M SORRY, I DIDN'T  
    UNDERSTAND THAT.")
```



3

## CHAT FUNCTION

```
DEF CHAT():
    PRINT("BREASTABOT: HELLO! ASK ME ABOUT BREAST CANCER
          (E.G., 'SYMPTOMS'). TYPE 'EXIT' TO QUIT.")

    WHILE TRUE:
        USER_INPUT = INPUT("YOU: ")
        IF USER_INPUT.LOWER() == "EXIT":
            PRINT("BREASTABOT: GOODBYE!")
            BREAK
        PRINT(F"BREASTABOT: {GET_RESPONSE(USER_INPUT)}")
```



4

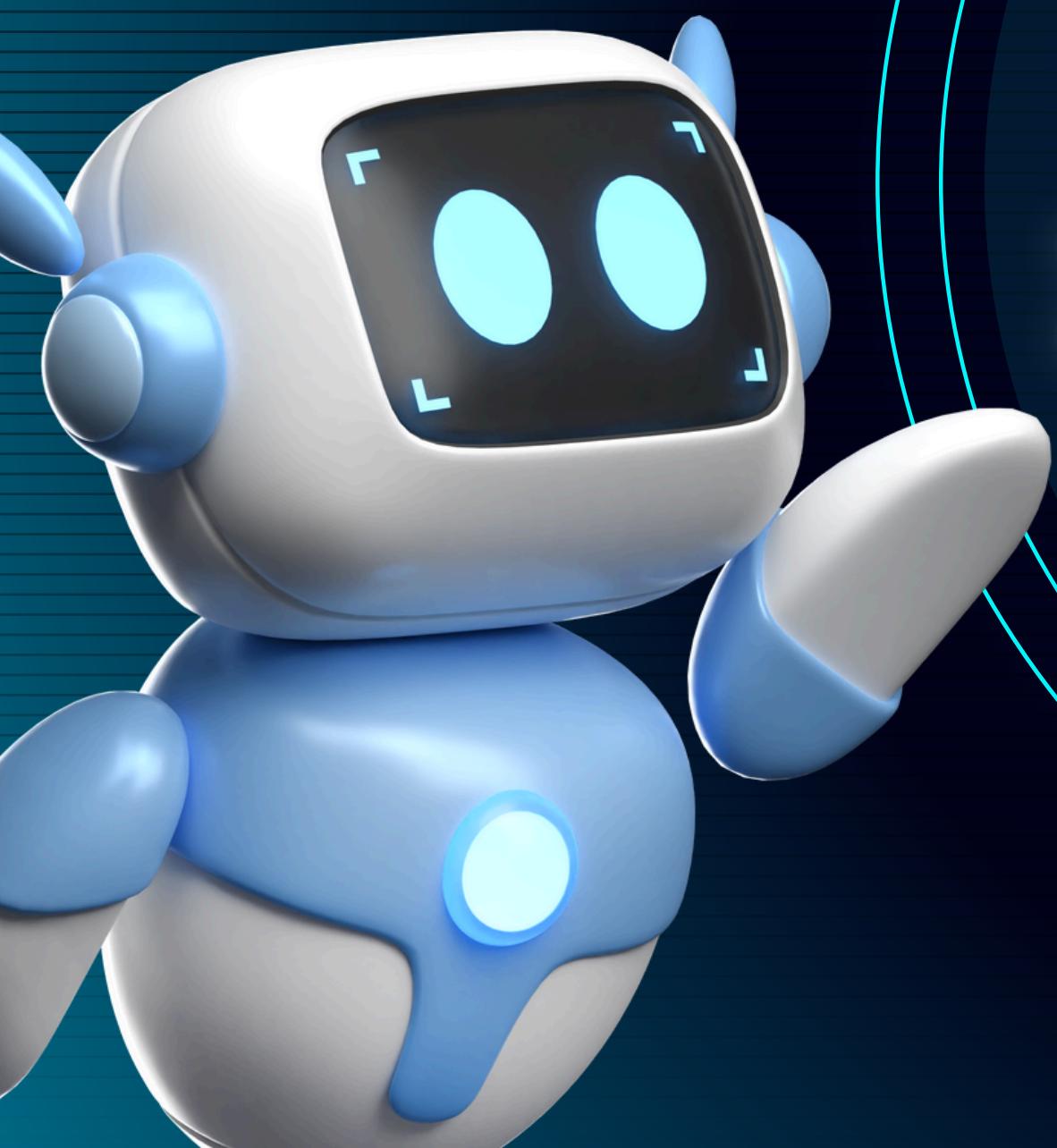
## RUN THE CHATBOT

```
IF __NAME__ == "__MAIN__":
    CHATO
```



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## EXAMPLE INTERACTION



USER-FRIENDLY INTERFACE:  
SCENARIO: A USER ASKS ABOUT BREAST CANCER  
SYMPTOMS.



BREASTABOT: HELLO! ASK ME ABOUT BREAST CANCER (E.G., 'SYMPTOMS'). TYPE 'EXIT' TO QUIT.

YOU: SYMPTOMS

BREASTABOT: COMMON SYMPTOMS OF BREAST CANCER INCLUDE A LUMP IN THE BREAST OR UNDERARM, CHANGES IN BREAST SIZE OR SHAPE...

YOU: RESOURCES

BREASTABOT: HERE ARE SOME TRUSTED RESOURCES: AMERICAN CANCER SOCIETY, BREASTCANCER.ORG, NATIONAL BREAST CANCER FOUNDATION.

YOU: EXIT

BREASTABOT: GOODBYE!

# ⑥ ADVANTAGES

## SIMPLICITY:

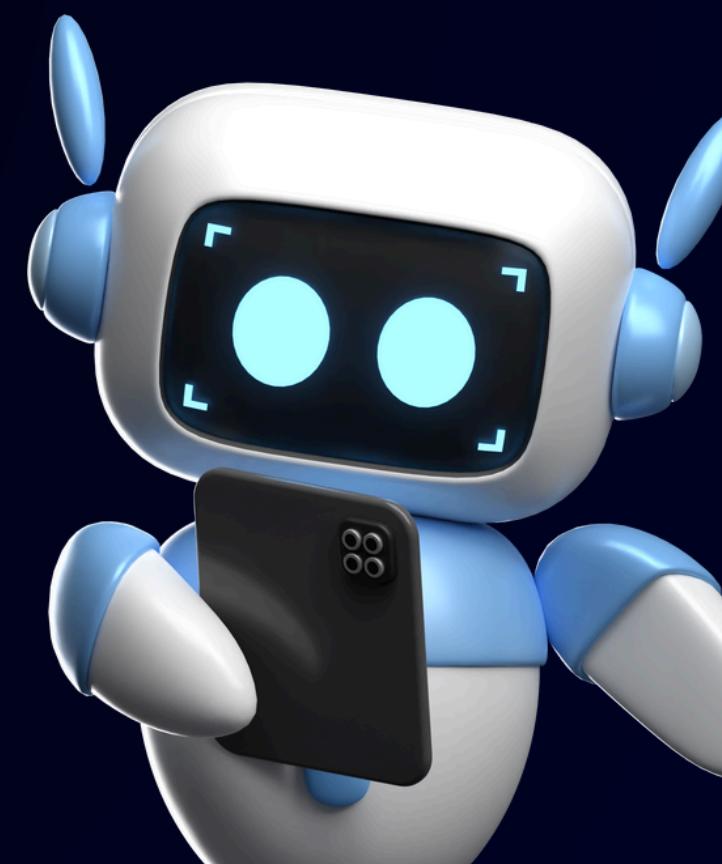
- No external libraries or complex setups required.
- Easy to run on any system with Python.

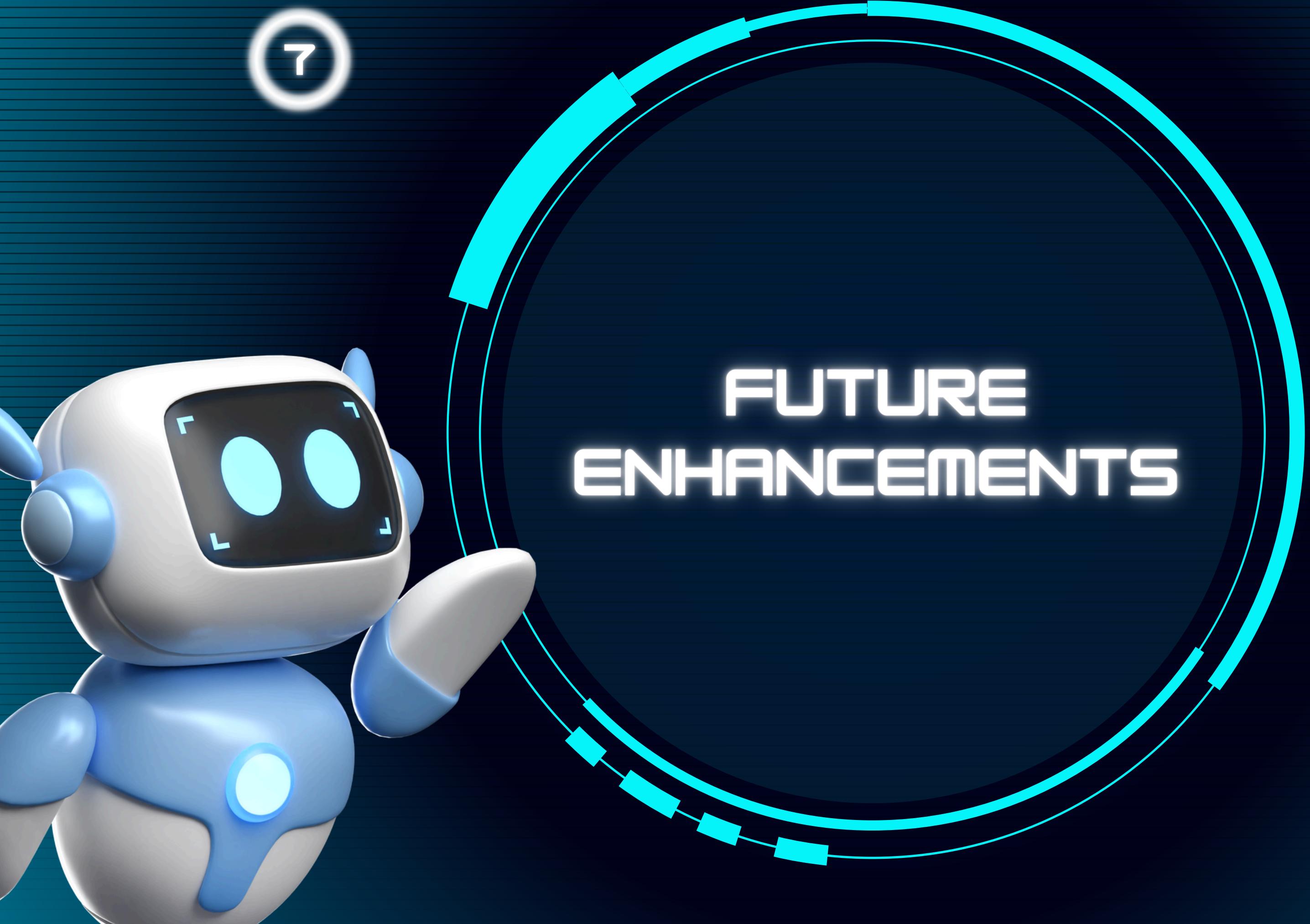
## MODULARITY:

JSON-based responses make it easy to update or expand.

## ACCESSIBILITY

Lightweight and runs directly in the terminal.





FUTURE  
ENHANCEMENTS



# INTRODUCTION

## 1-Improved Natural Language Processing (NLP):

- Use machine learning models like GPT for better understanding of free-text questions.

## 2-Enhanced Interface:

- Add a graphical interface (e.g., using Tkinter or PyQt).

## 3-Multilingual Support:

- Expand to support multiple languages for broader accessibility.

## 4-Integration with Resources:

- Provide direct links to trusted websites or helplines.



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# CONCLUSION



- BREASTABOT IS A SIMPLE AND EFFECTIVE TOOL FOR SPREADING AWARENESS ABOUT BREAST CANCER.

### KEY TAKEAWAY:

- WITH MINIMAL SETUP, USERS CAN ACCESS ESSENTIAL INFORMATION IN AN ENGAGING AND CONVERSATIONAL MANNER.