

# Project 101: Build-a-Bot – Fully Customizable Chatbot

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## Description:

This is your ultimate DIY chatbot tool. You can define the bot's **name**, **tone**, **style**, **role**, and even toggle **memory behavior**. It's perfect for creating anything from a friendly assistant to a strict coach or playful pirate.

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## build\_a\_bot.py

```
import os
import openai
import gradio as gr

# Load OpenAI API key
openai.api_key = os.getenv("OPENAI_API_KEY")

# Function to run the customizable chatbot
def build_a_bot(name, tone, role, message, memory_mode):
    try:
        # Define the persona and style for the system prompt
        system_prompt = (
            f"You are {name}, a chatbot with the personality of a {tone} {role}"
            f"Respond with that voice and be consistent in tone and mannerisms"
        )

        messages = [{"role": "system", "content": system_prompt}]

        # If memory mode is "off", forget past messages
        if memory_mode == "Off":
            messages.append({"role": "user", "content": message})
        else:
            # Use memory mode to track conversation history across turns (for
            if 'chat_history' not in gr.get_state():
                gr.set_state({'chat_history': []})
            state = gr.get_state()
            state['chat_history'].append({"role": "user", "content": message})
            messages += state['chat_history']
```

```

# Get AI response
response = openai.ChatCompletion.create(
    model="gpt-3.5-turbo",
    messages=messages
)

reply = response["choices"][0]["message"]["content"].strip()

# Store assistant response in memory if memory is on
if memory_mode == "On":
    state['chat_history'].append({"role": "assistant", "content": repl

return reply

except Exception as e:
    return f"Error: {str(e)}"

# Gradio interface
iface = gr.Interface(
    fn=build_a_bot,
    inputs=[
        gr.Textbox(label="Bot Name", placeholder="e.g., Luna, Captain Code, Me
        gr.Dropdown(["Friendly", "Funny", "Serious", "Strict", "Playful", "Sar
        gr.Textbox(label="Bot Role", placeholder="e.g., Life Coach, Writing Tu
        gr.Textbox(label="Your Message", placeholder="Say something to your bc
        gr.Radio(["On", "Off"], label="Memory Mode")
    ],
    outputs="text",
    title="🤖 Build-a-Bot: Customizable Chat Agent",
    description="Craft your own AI bot by setting its name, tone, role, and me
)

# Launch the ultimate chatbot builder
iface.launch()

```