

Project 57: Science Q&A Bot

Description:

This intelligent bot answers science questions across physics, chemistry, biology, or astronomy in an easy-to-understand and accurate way. Ideal for curious students, quiz prep, or learning assistance—with explanations that make sense, not confusion.

science_qa_bot.py

```
import openai
import os
import gradio as gr

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

# Function to answer science questions
def answer_science_question(question, subject):
    # Prompt to behave like a science teacher
    messages = [
        {
            "role": "system",
            "content": (
                f"You are a brilliant and friendly science teacher. Answer the "
                "Provide a clear, step-by-step explanation in simple language "
                "Use examples or analogies where helpful."
            )
        },
        {
            "role": "user",
            "content": question
        }
    ]

    try:
        # Call OpenAI API for response
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo",
```

```

        messages=messages
    )

    # Return explanation
    return response["choices"][0]["message"]["content"].strip()

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

# Gradio interface
iface = gr.Interface(
    fn=answer_science_question,
    inputs=[
        gr.Textbox(label="Ask a Science Question"),
        gr.Dropdown(["Physics", "Chemistry", "Biology", "Astronomy", "General
    ],
    outputs="text",
    title="🔬 Science Q&A Bot",
    description="Ask any science question and get a clear, thoughtful answer w
)

# Launch the bot
iface.launch()

```