

Project 27: Personalized Study Plan Recommender

Description:

This intelligent assistant creates customized study plans based on your subject, goal, schedule, and learning style. Whether you're preparing for exams, learning a new skill, or just want structured progress—it tailors the plan just for you.

study_plan_recommender.py

```
import openai
import os
import gradio as gr

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

# Core function to generate a study plan
def generate_study_plan(user_input):
    # System prompt to shape the assistant into an academic mentor
    messages = [
        {
            "role": "system",
            "content": (
                "You are an academic coach. Based on a user's goals, topics, t\n"
                "create a personalized study plan. Break it down into days or\n"
                "Keep the plan motivating, manageable, and structured."
            )
        },
        {
            "role": "user",
            "content": f"Create a study plan for: {user_input}"
        }
    ]

    try:
        # Call OpenAI's API to get a structured plan
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo", # You can upgrade to GPT-4 for more detail
```

```

        messages=messages
    )

    # Return the formatted study plan
    return response['choices'][0]['message']['content'].strip()

except Exception as e:
    # Return any errors
    return f"Error: {str(e)}"

# Gradio interface for personalized study plans
iface = gr.Interface(
    fn=generate_study_plan,                # Function to handle
    inputs=gr.Textbox(lines=3, placeholder="e.g. I want to learn Python in 4 w",
    outputs="text",                        # Display output pla
    title="🎓 Study Plan Recommender",      # App title
    description=(
        "Tell me your subject, timeline, daily availability, and how you like
        "Try: 'Prepare for GRE in 2 months with 2 hours daily' or 'Learn data
    )
)

# Launch the app
iface.launch()

```