Project 78: SWOT Analysis Generator

Description:

This tool creates a detailed SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for any business, project, or personal brand. Great for pitch decks, strategic planning, or self-assessment to uncover risks and advantages.

swot_analysis_generator.py

```python
import openai
import os
import gradio as gr

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

# Function to generate SWOT analysis
def generate_swot(business_name, description, industry):
    # Prompt to behave like a strategic business analyst
    messages = [
        {
            "role": "system",
            "content": (
                "You are a business analyst helping to generate a SWOT analysi
                "create a detailed SWOT covering:\n- Strengths\n- Weaknesses\n
                "Make it clear, concise, and suitable for strategic decision m
            )
        },
        {
            "role": "user",
            "content": (
                f"Business Name: {business_name}\n"
                f"Description: {description}\n"
                f"Industry: {industry}"
            )
        }
    ]
```

```python
    try:
        # Ask OpenAI to generate SWOT
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo",
            messages=messages
        )
        return response["choices"][0]["message"]["content"].strip()

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

# Gradio interface
iface = gr.Interface(
    fn=generate_swot,
    inputs=[
        gr.Textbox(label="Business or Brand Name"),
        gr.Textbox(label="Brief Description of Business"),
        gr.Textbox(label="Industry (e.g. SaaS, Retail, HealthTech, Personal Br
    ],
    outputs="text",
    title="📊  SWOT Analysis Generator",
    description="Enter your business info and get a full SWOT breakdown to use
)

# Launch the SWOT builder
iface.launch()
```