Project 18: Email Thread Summarizer

Description:
This tool summarizes long, back-and-forth email threads into a concise overview—highlighting who said what, key decisions, and action items. It's perfect for busy professionals who need to catch up on emails quickly without reading everything line by line.

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email_thread_summarizer.py

```
import openai
import os
import gradio as gr

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

# Function to summarize an email thread
def summarize_email_thread(thread_text):
    # System prompt helps the model understand the task
    messages = [
        {
            "role": "system",
            "content": (
                "You are an executive assistant. Your job is to read an entire
                "highlight key points, decisions made, who said what, and any
                "Be clear, concise, and professional. Use bullet points if hel
            )
        },
        {
            "role": "user",
            "content": f"Summarize the following email thread:\n\n{thread_text
        }
    ]

    try:
        # Send the thread to OpenAI API for summarization
        response = openai.ChatCompletion.create(
```

```
            model="gpt-3.5-turbo",    # GPT-4 works great too
            messages=messages
        )

        # Extract and return summary
        return response['choices'][0]['message']['content'].strip()

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

# Create a Gradio UI for user to paste email thread
iface = gr.Interface(
    fn=summarize_email_thread,                          # The core summarizer fu
    inputs=gr.Textbox(lines=15, placeholder="Paste a full email thread here...
    outputs="text",                                     # Output field
    title="📨 Email Thread Summarizer",                 # App title
    description=(
        "Paste a long email thread and get a summary of the conversation. "
        "Highlights decisions, participants, and key points. Great for catchir
    )
)

# Launch the app
iface.launch()
```