Project 17: Book Chapter Summarizer

Description:

This tool helps readers digest entire book chapters by providing concise, easy-to-understand summaries. Whether you're studying, prepping for a test, or reviewing a novel, it extracts key events, themes, and characters from lengthy chapter text.

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book_chapter_summarizer.py

```
import openai
import os
import gradio as gr

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

# Function to summarize book chapter text
def summarize_chapter(chapter_text):
    # System prompt to guide the model like a literature teacher
    messages = [
        {
            "role": "system",
            "content": (
                "You are a book summary expert. Your task is to summarize a ch
                "Highlight the key events, main ideas, characters involved, an
                "Be clear and educational, but keep the tone light and easy to
            )
        },
        {
            "role": "user",
            "content": f"Summarize this chapter:\n\n{chapter_text}"
        }
    ]

    try:
        # Call the OpenAI Chat API
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo",  # Swap with GPT-4 for more literary depth
```

```
            messages=messages
        )

        # Return the assistant's summary
        return response["choices"][0]["message"]["content"].strip()

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

# Build a Gradio interface for input/output
iface = gr.Interface(
    fn=summarize_chapter,                              # Function to run
    inputs=gr.Textbox(lines=20, placeholder="Paste a book chapter or section h
    outputs="text",                                    # Summarized output
    title="📘 Book Chapter Summarizer",                # App title
    description=(
        "Paste a chapter from a novel or non-fiction book and get a clear summ
        "Includes key ideas, events, and characters. Great for quick reviews o
    )
)

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