

# Project 38: Song Lyric Generator

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## Description:

This AI lyricist writes original song lyrics based on your theme, genre, and emotion. Whether it's pop, rap, country, or R&B—you'll get lyrics with flow, rhyme, and feeling. Perfect for musicians, content creators, or just for fun!

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## song\_lyric\_generator.py

```
import openai
import os
import gradio as gr

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

# Function to generate song lyrics
def generate_lyrics(theme, genre):
    # Prompt the assistant to become a creative lyricist
    messages = [
        {
            "role": "system",
            "content": (
                f"You are a talented songwriter. Based on the user's theme and\n"
                "Use rhyming patterns, repetition, and emotional tone that fit
            )
        },
        {
            "role": "user",
            "content": f"Theme: {theme}\nGenre: {genre}"
        }
    ]

    try:
        # Call OpenAI API for lyric generation
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo", # Upgrade to GPT-4 for richer lyrics
            messages=messages
```

```

    )

    # Return the song lyrics
    return response["choices"][0]["message"]["content"].strip()

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

# Gradio interface for creating song lyrics
iface = gr.Interface(
    fn=generate_lyrics,                                # Core lyric generator
    inputs=[
        gr.Textbox(label="Song Theme (e.g. heartbreak, summer love, chasing dr
        gr.Radio(["pop", "rap", "country", "rock", "r&b", "ballad"], label="Ge
    ],
    outputs="text",
    title="🎤 Song Lyric Generator",
    description="Enter a theme and select a genre—I'll write original lyrics w
)

# Launch the lyric generator
iface.launch()

```