

Project 35: Instagram Caption Creator

Description:

This tool generates creative, witty, or aesthetic Instagram captions based on your photo description or vibe. Whether it's a travel shot, food post, gym mirror selfie, or a moody sunset—you'll get scroll-worthy captions in seconds.

instagram_caption_creator.py

```
import openai
import os
import gradio as gr

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

# Function to generate Instagram captions
def generate_caption(photo_description, style):
    # System prompt for a social media assistant
    messages = [
        {
            "role": "system",
            "content": (
                f"You are an Instagram caption expert. Create 3 creative, trendy captions "
                f"based on the given description, using a {style} tone. Feel free to be creative."
            )
        },
        {
            "role": "user",
            "content": f"Photo description: {photo_description}"
        }
    ]

    try:
        # Call OpenAI API
        response = openai.ChatCompletion.create(
            model="gpt-3.5-turbo",
            messages=messages
        )
    except Exception as e:
        print(f"Error: {e}")
        return "An error occurred while generating captions. Please check your API key and try again."

    # Extract the generated captions from the response
    captions = response.choices[0].message.content
    return captions
```

```

    )

    # Return the list of captions
    return response["choices"][0]["message"]["content"].strip()

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

# Gradio interface setup
iface = gr.Interface(
    fn=generate_caption,                    # Core functi
    inputs=[
        gr.Textbox(label="Describe Your Photo or Post"),    # Input descr
        gr.Radio(["funny", "aesthetic", "inspirational", "sassy"], label="Capt
    ],
    outputs="text",                        # Output capt
    title="📸 Instagram Caption Creator",
    description="Describe your post, pick a style, and get 3 fun & catchy capt
)

# Launch the caption generator
iface.launch()

```