In [ ]:
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pip install face_recognition
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In [ ]:
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import face_recognition
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import os
from PIL import Image

def is_image_empty(image_path):
    try:
        image = face_recognition.load_image_file(image_path)
        face_locations = face_recognition.face_locations(image)
        return len(face_locations) == 0
    except Image.UnidentifiedImageError:
        print(f"Error loading image: {image_path}")
        return True

def extract_faces(image_path, output_folder):
    try:
        image = face_recognition.load_image_file(image_path)
        face_locations = face_recognition.face_locations(image)

        for i, (top, right, bottom, left) in enumerate(face_locations):
            # Extract the face from the image
            face_image = image[top:bottom, left:right]
            pil_image = Image.fromarray(face_image)

            # Generate a unique filename for the extracted face image
            original_filename = os.path.splitext(os.path.basename(image_path))[0]
            output_filename = f"{original_filename}_face_{i}.jpg"

            # Save the extracted face as a separate image in the appropriate subfolder
            subfolder = os.path.dirname(os.path.relpath(image_path, folder_path))
            subfolder_output_path = os.path.join(output_folder, subfolder)
            os.makedirs(subfolder_output_path, exist_ok=True)
            output_path = os.path.join(subfolder_output_path, output_filename)
            pil_image.save(output_path)
    except Image.UnidentifiedImageError:
        print(f"Error extracting faces from image: {image_path}")

def process_folder(folder_path, output_folder_path):
    for root, dirs, files in os.walk(folder_path):
        for file in files:
            if file.endswith(".jpg") or file.endswith(".png"):
                image_path = os.path.join(root, file)
                if is_image_empty(image_path):
                    print(f"Skipping empty or unsupported image: {image_path}")
                    continue
                print(f"Extracting faces from: {image_path}")
                extract_faces(image_path, output_folder_path)

# Specify the input folder path where your pictures are stored
folder_path = "/Users/kei/Desktop/Leaders File"

# Specify the output folder path on your desktop
output_folder_path = os.path.expanduser("/Users/kei/Desktop/Extracted2")

# Create the output folder if it doesn't exist
os.makedirs(output_folder_path, exist_ok=True)

print("Processing folder...")
process_folder(folder_path, output_folder_path)

print("Extraction completed!")
```