```
!pip install ultralytics opencv-python matplotlib
```

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```

```
from ultralytics import YOLO
import cv2
import os
import json
import matplotlib.pyplot as plt
from collections import defaultdict
from google.colab import files
from IPython.display import Image, display
```

```
video_path ='/content/VIDEO.mp4'
output_json_path = 'detections.json'
annotated_dir = 'annotated_frames'
bar_chart_path = 'object_frequency.png'
frame_skip = 5
```

```
os.makedirs(annotated_dir, exist_ok=True)
```

```
model = YOLO('yolov5s.pt')


cap = cv2.VideoCapture(video_path)
frame_id = 0
detections = {}
class_counts = defaultdict(int)
frame_class_diversity = {}

while cap.isOpened():
    ret, frame = cap.read()
```

```
    if not ret:
        break

    if frame_id % frame_skip == 0:
        results = model(frame)[0]
        frame_data = []

        for box in results.boxes:
            cls_id = int(box.cls[0])
            label = model.names[cls_id]
            conf = float(box.conf[0])
            x1, y1, x2, y2 = map(int, box.xyxy[0])

            frame_data.append({
                "label": label,
                "confidence": round(conf, 3),
                "bbox": [x1, y1, x2, y2]
            })

            class_counts[label] += 1

            # Draw on frame
            cv2.rectangle(frame, (x1, y1), (x2, y2), (0,255,0), 2)
            cv2.putText(frame, f'{label} {conf:.2f}', (x1, y1-5),
                        cv2.FONT_HERSHEY_SIMPLEX, 0.5, (255,0,0), 2)

        detections[f"frame_{frame_id}"] = frame_data
        frame_class_diversity[f"frame_{frame_id}"] = len(set(d['label'] for d in frame_data))

        # Save annotated frame
        output_frame_path = f"{annotated_dir}/frame_{frame_id}.jpg"
        cv2.imwrite(output_frame_path, frame)

    frame_id += 1

cap.release()


with open(output_json_path, 'w') as f:
    json.dump(detections, f, indent=2)


max_div_frame = max(frame_class_diversity, key=frame_class_diversity.get)
print(f"Frame with max class diversity: {max_div_frame} ({frame_class_diversity[max_div_frame]} classes)")


plt.figure(figsize=(10,6))
plt.bar(class_counts.keys(), class_counts.values(), color='skyblue')
plt.title("Object Frequency Across Frames")
plt.xlabel("Object Class")
plt.ylabel("Count")
plt.xticks(rotation=45)
plt.tight_layout()
plt.savefig(bar_chart_path)
plt.show()
```

PRO TIP 💡 Replace 'model=yolov5s.pt' with new 'model=yolov5su.pt'.
YOLOv5 'u' models are trained with https://github.com/ultralytics/ultralytics and feature improved performance vs standard YOLOv5 m

0: 384x640 7 persons, 1 backpack, 303.5ms
Speed: 5.0ms preprocess, 303.5ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 backpack, 290.0ms
Speed: 3.1ms preprocess, 290.0ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 backpack, 301.7ms
Speed: 4.9ms preprocess, 301.7ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 293.2ms
Speed: 4.3ms preprocess, 293.2ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 backpack, 295.1ms
Speed: 3.1ms preprocess, 295.1ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 310.1ms
Speed: 3.0ms preprocess, 310.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 297.0ms
Speed: 4.3ms preprocess, 297.0ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 291.7ms
Speed: 3.7ms preprocess, 291.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 backpack, 1 potted plant, 435.6ms
Speed: 3.7ms preprocess, 435.6ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 potted plant, 291.0ms
Speed: 3.3ms preprocess, 291.0ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 303.3ms
Speed: 3.4ms preprocess, 303.3ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 potted plant, 303.3ms
Speed: 3.1ms preprocess, 303.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 potted plant, 289.0ms
Speed: 3.6ms preprocess, 289.0ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 299.6ms
Speed: 3.4ms preprocess, 299.6ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 306.1ms
Speed: 3.0ms preprocess, 306.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 292.5ms
Speed: 4.2ms preprocess, 292.5ms inference, 1.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 301.6ms
Speed: 2.8ms preprocess, 301.6ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 313.1ms
Speed: 3.7ms preprocess, 313.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 294.9ms
Speed: 3.1ms preprocess, 294.9ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 297.2ms
Speed: 3.7ms preprocess, 297.2ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 301.9ms
Speed: 3.7ms preprocess, 301.9ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 292.3ms
Speed: 4.2ms preprocess, 292.3ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 293.6ms
Speed: 3.2ms preprocess, 293.6ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 311.0ms
Speed: 3.2ms preprocess, 311.0ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 296.4ms
Speed: 3.3ms preprocess, 296.4ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 288.3ms
Speed: 2.8ms preprocess, 288.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 303.7ms
Speed: 2.9ms preprocess, 303.7ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 333.1ms
Speed: 3.1ms preprocess, 333.1ms inference, 1.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 463.5ms
Speed: 3.3ms preprocess, 463.5ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

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0: 384x640 9 persons, 1 potted plant, 480.7ms
Speed: 3.2ms preprocess, 480.7ms inference, 1.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 464.2ms
Speed: 3.4ms preprocess, 464.2ms inference, 4.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 499.0ms
Speed: 3.4ms preprocess, 499.0ms inference, 1.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 463.1ms
Speed: 3.4ms preprocess, 463.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 305.2ms
Speed: 2.9ms preprocess, 305.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 288.1ms
Speed: 3.4ms preprocess, 288.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 293.0ms
Speed: 2.8ms preprocess, 293.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 307.4ms
Speed: 4.9ms preprocess, 307.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 290.8ms
Speed: 3.0ms preprocess, 290.8ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 293.5ms
Speed: 3.2ms preprocess, 293.5ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 297.3ms
Speed: 3.2ms preprocess, 297.3ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 286.0ms
Speed: 3.2ms preprocess, 286.0ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 308.8ms
Speed: 3.2ms preprocess, 308.8ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 431.5ms
Speed: 3.6ms preprocess, 431.5ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 336.7ms
Speed: 2.9ms preprocess, 336.7ms inference, 1.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 306.0ms
Speed: 3.1ms preprocess, 306.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 361.4ms
Speed: 3.5ms preprocess, 361.4ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 408.1ms
Speed: 3.7ms preprocess, 408.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 428.4ms
Speed: 2.9ms preprocess, 428.4ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 348.6ms
Speed: 3.9ms preprocess, 348.6ms inference, 2.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 306.5ms
Speed: 4.2ms preprocess, 306.5ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 306.2ms
Speed: 3.6ms preprocess, 306.2ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 297.4ms
Speed: 3.5ms preprocess, 297.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 292.5ms
Speed: 3.1ms preprocess, 292.5ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 316.2ms
Speed: 3.3ms preprocess, 316.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 292.1ms
Speed: 3.0ms preprocess, 292.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 301.4ms
Speed: 4.1ms preprocess, 301.4ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 1 bicycle, 317.2ms
Speed: 6.1ms preprocess, 317.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 302.7ms
Speed: 3.6ms preprocess, 302.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 294.2ms
Speed: 3.7ms preprocess, 294.2ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)
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0: 384x640 8 persons, 309.6ms
Speed: 2.9ms preprocess, 309.6ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 293.6ms
Speed: 3.7ms preprocess, 293.6ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 444.1ms
Speed: 3.3ms preprocess, 444.1ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 481.5ms
Speed: 3.2ms preprocess, 481.5ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 475.1ms
Speed: 3.9ms preprocess, 475.1ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 482.3ms
Speed: 3.2ms preprocess, 482.3ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 potted plant, 467.5ms
Speed: 5.7ms preprocess, 467.5ms inference, 1.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 338.7ms
Speed: 3.3ms preprocess, 338.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 296.6ms
Speed: 3.1ms preprocess, 296.6ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 308.2ms
Speed: 3.2ms preprocess, 308.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 323.2ms
Speed: 4.1ms preprocess, 323.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 293.4ms
Speed: 3.5ms preprocess, 293.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 1 potted plant, 291.0ms
Speed: 3.3ms preprocess, 291.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 1 potted plant, 303.6ms
Speed: 3.1ms preprocess, 303.6ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 291.2ms
Speed: 3.4ms preprocess, 291.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 294.0ms
Speed: 3.5ms preprocess, 294.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 307.9ms
Speed: 3.0ms preprocess, 307.9ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 288.3ms
Speed: 2.8ms preprocess, 288.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 289.2ms
Speed: 3.1ms preprocess, 289.2ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 299.6ms
Speed: 3.4ms preprocess, 299.6ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 292.6ms
Speed: 3.7ms preprocess, 292.6ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 415.1ms
Speed: 4.5ms preprocess, 415.1ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 309.4ms
Speed: 3.9ms preprocess, 309.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 294.3ms
Speed: 4.8ms preprocess, 294.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 308.6ms
Speed: 3.8ms preprocess, 308.6ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 5 persons, 1 potted plant, 370.5ms
Speed: 3.0ms preprocess, 370.5ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 293.2ms
Speed: 4.2ms preprocess, 293.2ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 287.1ms
Speed: 3.0ms preprocess, 287.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 302.3ms
Speed: 3.0ms preprocess, 302.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 9 persons, 1 potted plant, 290.3ms
Speed: 3.0ms preprocess, 290.3ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)
```
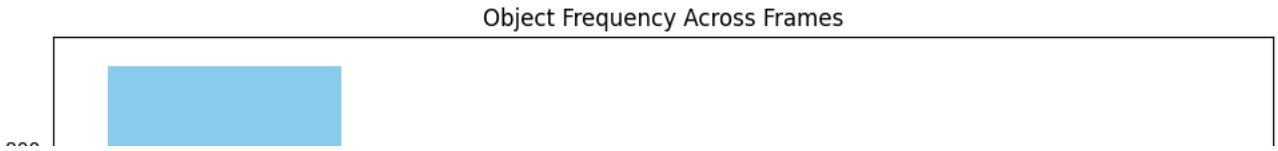
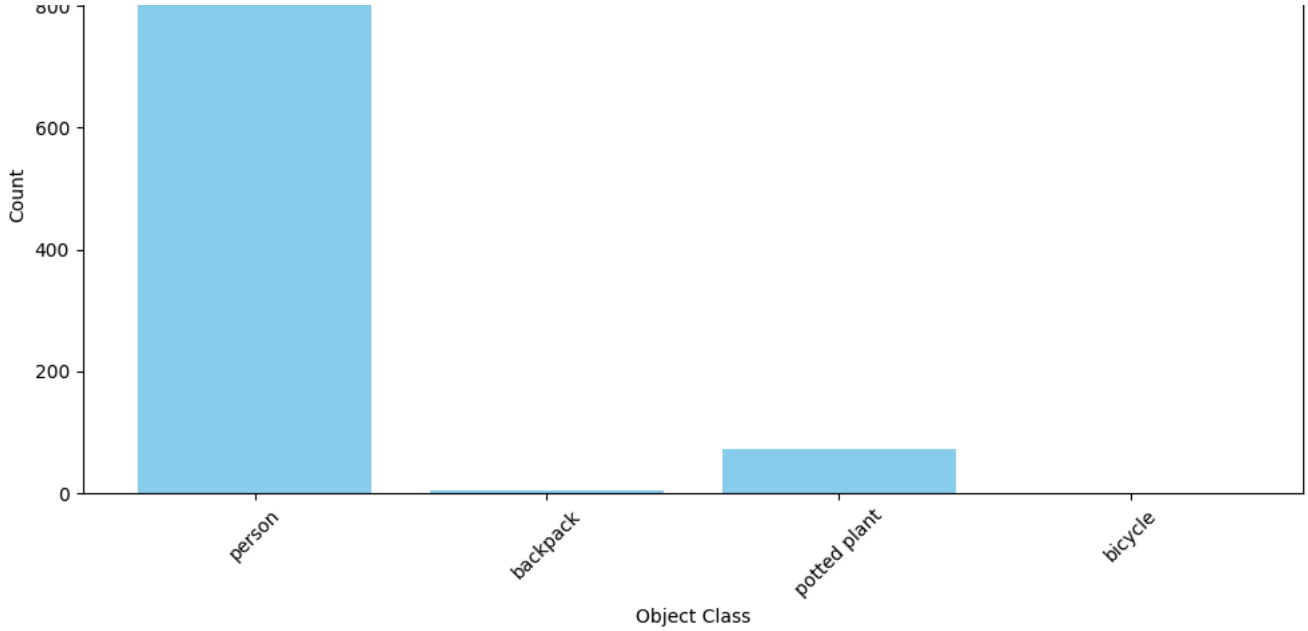

```
0: 384x640 9 persons, 1 potted plant, 302.2ms
Speed: 3.3ms preprocess, 302.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 307.9ms
Speed: 2.9ms preprocess, 307.9ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 295.5ms
Speed: 3.9ms preprocess, 295.5ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 287.9ms
Speed: 3.9ms preprocess, 287.9ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 290.3ms
Speed: 3.9ms preprocess, 290.3ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 291.5ms
Speed: 3.1ms preprocess, 291.5ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 381.4ms
Speed: 4.1ms preprocess, 381.4ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 489.0ms
Speed: 3.1ms preprocess, 489.0ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 472.7ms
Speed: 3.2ms preprocess, 472.7ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 471.5ms
Speed: 3.2ms preprocess, 471.5ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 468.4ms
Speed: 3.4ms preprocess, 468.4ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 419.0ms
Speed: 4.0ms preprocess, 419.0ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 306.9ms
Speed: 3.9ms preprocess, 306.9ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 291.1ms
Speed: 2.9ms preprocess, 291.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 306.6ms
Speed: 3.6ms preprocess, 306.6ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 292.5ms
Speed: 3.3ms preprocess, 292.5ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 289.7ms
Speed: 3.1ms preprocess, 289.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 292.8ms
Speed: 3.0ms preprocess, 292.8ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 8 persons, 1 potted plant, 299.1ms
Speed: 3.2ms preprocess, 299.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 5 persons, 1 potted plant, 291.0ms
Speed: 3.3ms preprocess, 291.0ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 5 persons, 1 potted plant, 291.9ms
Speed: 3.9ms preprocess, 291.9ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 1 potted plant, 303.1ms
Speed: 3.7ms preprocess, 303.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 290.4ms
Speed: 3.4ms preprocess, 290.4ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 297.1ms
Speed: 3.3ms preprocess, 297.1ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 7 persons, 1 potted plant, 307.1ms
Speed: 3.4ms preprocess, 307.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 1 potted plant, 294.0ms
Speed: 3.2ms preprocess, 294.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 1 potted plant, 283.0ms
Speed: 3.0ms preprocess, 283.0ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 6 persons, 1 potted plant, 306.7ms
Speed: 2.6ms preprocess, 306.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)
Frame with max class diversity: frame_40 (3 classes)
```





How I did it – Step-by-step:

1. Loaded the video using OpenCV.
2. Loaded YOLOv5 model to detect objects.
3. Processed every 5th frame from the video.
4. For each processed frame:

- Ran object detection.
- Collected class label, confidence, and box location.
- Drew boxes and labels on the image.
- Counted how many times each object appeared.
- Saved the frame and its detection info.

5. Found the frame with the most different types of objects.
6. Created a bar chart to show object frequency.
7. Saved all results:

- Annotated images
- Detections in .json