**Approach 1:**

**API Inference and Counting:**

1. Used the InferenceHTTPClient from the inference\_sdk library to communicate with the Roboflow API.

2. Passed a single image file (29.jpg) for inference with a model ID ("potato-seg/1"), which is designed to detect potatoes.

3. After running the inference, extracted the number of detected potatoes from the result by filtering predictions where the object class was labeled as "potato".

4. Finally, printed the number of detected potatoes to the console.

**Approach 2:**

**API Inference:**

Similar to the first approach, we used the Roboflow API to perform inference on the image , extracting the number of detected potatoes from the result.

**Image Processing with OpenCV:**

1. Loaded the image using OpenCV (cv2.imread) and then used OpenCV's text rendering functions to display the number of detected potatoes directly on the image.

2. Specifically, we calculated the position to place the text on the bottom-right corner of the image, ensuring that the text (Count: <number of potatoes>) appears properly.

3. Saving Processed Image: Saved the modified image to an output folder

**Model :** YOLOv8

**API :** Roboflow

**Link :**<https://universe.roboflow.com/vegetable-quality-detection/potato-detection-3et6q>