TASK: To install label-studio an aws ec2 ubuntu instance ,do annotation on it ,export json and manipulate it as per client format.

#1.1: Instance Creation and Label Studio Installation

1. First, you will need to start an Ubuntu EC2 instance on AWS. Select the instance type that is eligible for the free tier (i.e., t2.micro) and storage of approximately 8GB.
2. Install the Label Studio tool on it https://labelstud.io/ and run Label Studio so that it can be accessed on some port (e.g., 8080). Also, open port 8080 in the instance.

#1.2: Create Project, Import Task, Do Annotation

1. Create a sample project on Label Studio.
2. Now import some images into this project (at least 2). The images must contain text. You can download and import these images:
    i. https://mpacprint.com/wp-content/uploads/2013/03/signboard.jpg
    ii. https://mpacprint.com/wp-content/uploads/2013/01/dsc00734.jpg
3. In the labeling setup, select optical character recognition (OCR) as a template and save the project.
4. Now open the project you have created, select the task, draw rectangular bounding boxes around the words, and write their transcription in the text area. Save the annotation.

#1.3: Export Project and Separate Annotations of Each Image Using Python

1. Now export the project in JSON format.
2. The annotations of all the images will be exported in a single JSON file.
3. The JSON contains a list of dictionaries where each dictionary is a task (i.e., an annotation of an image). In each dictionary, the name of the image is mentioned so that you can distinguish which dictionary represents the annotation of which image.
4. You will have to write a new JSON file for each task and save that JSON file with the name of the image using Python.

#1.4: Import Again for Rework

1. Now let's say our team has annotated 500 images, separated them, and made 500 JSON files. We sent 500 images with 500 JSON files to the client, and the client found mistakes in, let's say, 35 annotations.
2. They will give us the names of these 35 files in a sheet. Now, our team will have to rework these 35 tasks.
3. You will have to take out these 35 images and their JSONs from all 500 images and their JSONs, respectively.
4. Import these 35 images and JSONs so that our team can correct these annotations rather than annotating from scratch.

#1.5: Convert JSON Exported from Label Studio into Client-Required Format

You can see the format of the JSON exported from Label Studio, but most of the time the client sends their JSON format in which they require the JSON file. So, we have to change the JSON file format as per the client's requirements.

For example:
Let's say we have an image named Image001.jpg. We want its JSON named Image001.json.

Here is the format of the JSON that the client requires, sent by the client as an example. We have to parse the JSON exported from Label Studio and convert it to the format asked by the client.

Client's example format:

```
[
 {
   "text": "sign",
   "bbox": {
     "x": 23.99,
     "y": 54.58,
     "width": 20.56,
     "height": 15.48
   }
 },
 {
   "text": "board",
   "bbox": {
     "x": 29.19,
     "y": 84.58,
     "width": 40.26,
     "height": 23.49
   }
 }
```
```
```
```

]
```