# YOLO PingPong 训练数据标注Pipeline

## label studio 使用教程

### 1.1 环境配置

官方配置环境网址（供参考，可以只看和运行下面四行指令，关于用anaconda安装）：https://github.com/HumanSignal/label-studio?tab=readme-ov-file#included-templates-for-labeling-data-in-label-studio

我使用的是 Anaconda安装方式：

**Install locally with Anaconda**

```
conda create --name label-studio
conda activate label-studio
conda install psycopg2
pip install label-studio
```

### 1.2 启动 label studio

打开终端

conda activate label-studio

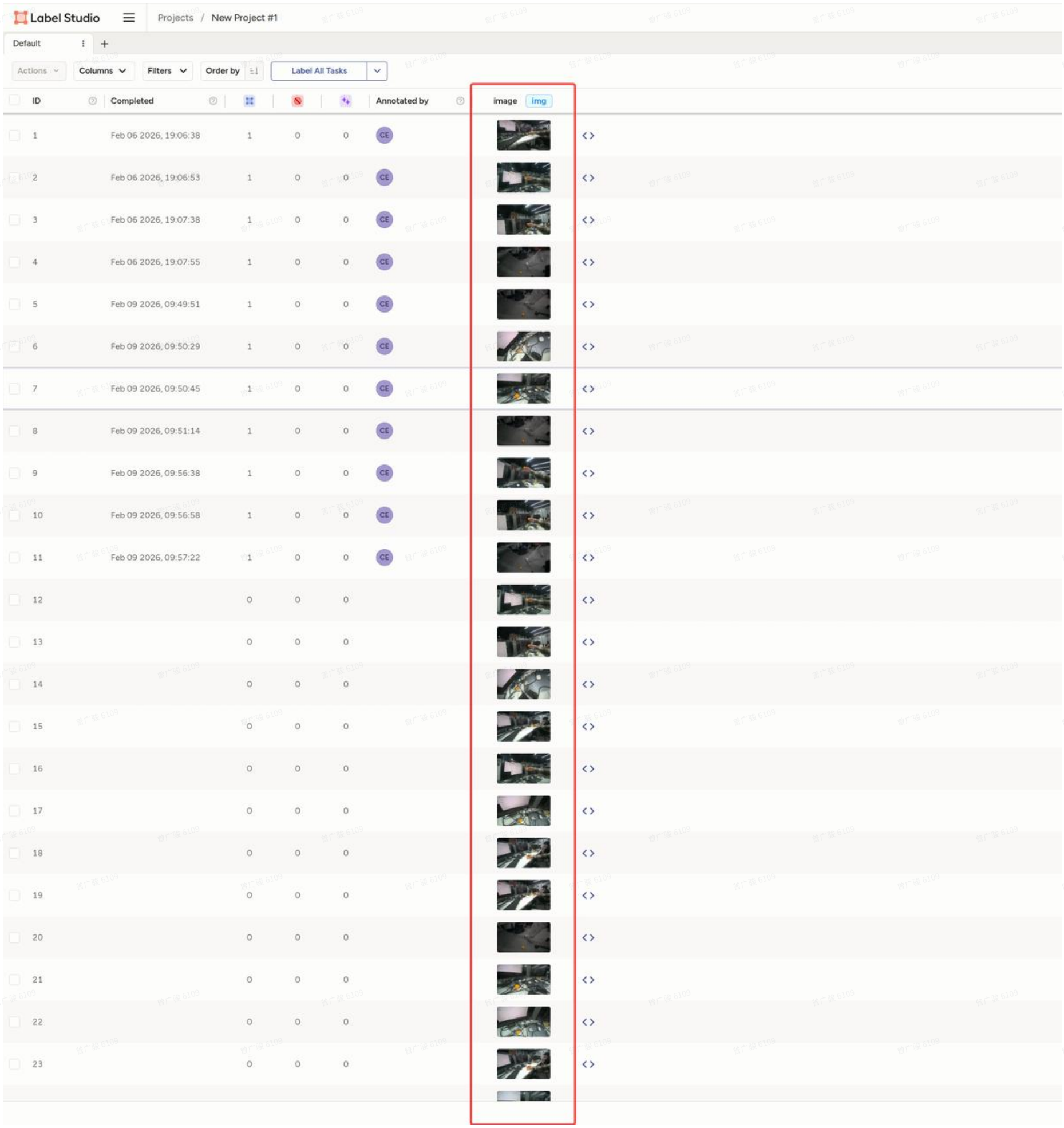
label-studio

打开网址：http://localhost:8080

登陆账号和密码： cengqs777@gmail.com  12345678

点击打开 new project 1


点击一张图片进入即可开始标注：




### 1.3 协作方式

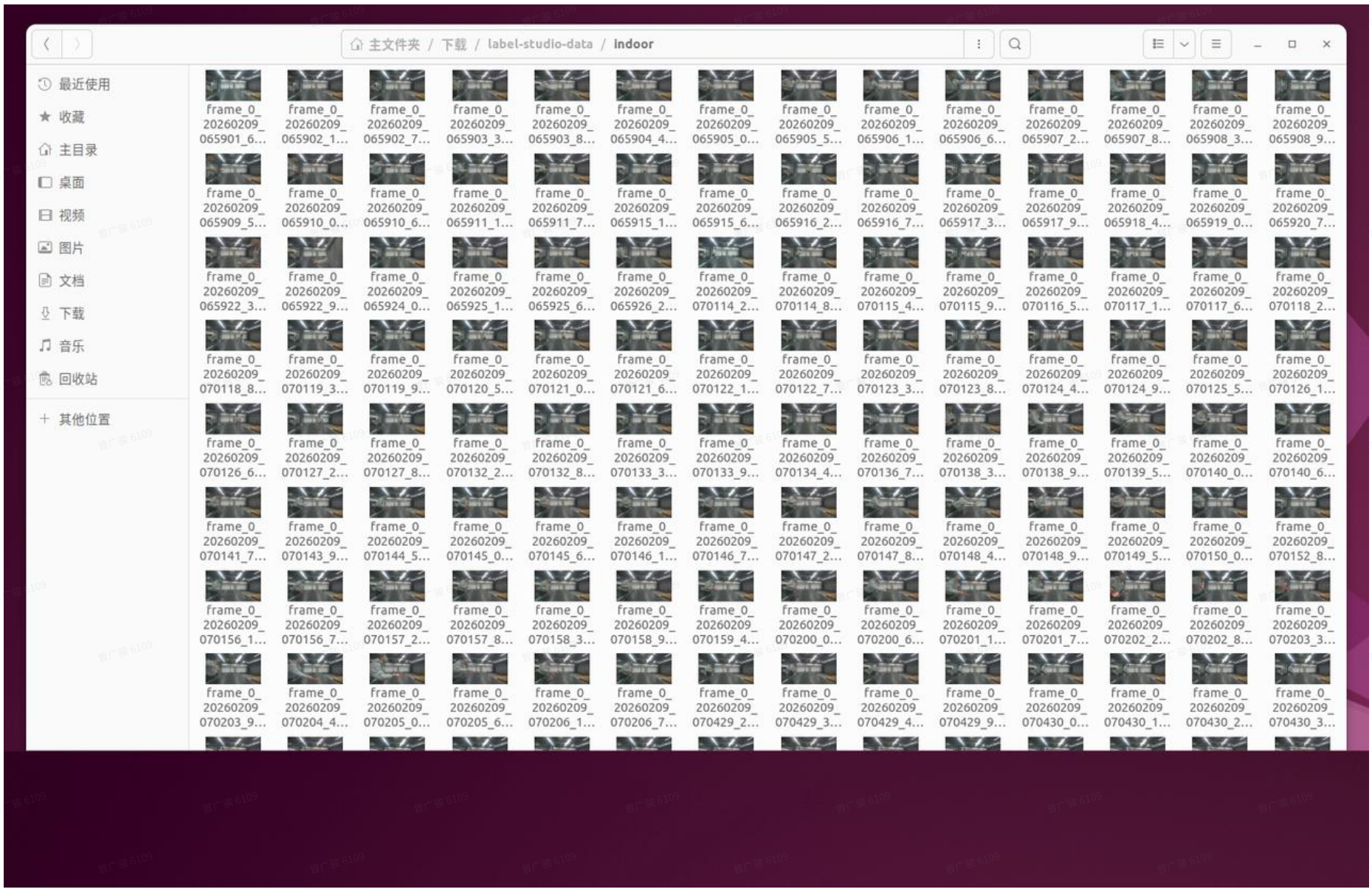
项目管理者先登陆label-studio

协作者需要在同一个wifi下，进入网址：http://192.168.100.144:8080

192.168.100.144是项目管理者电脑的ip address (用ipconfig查看，注意找无线局域网的ip address)

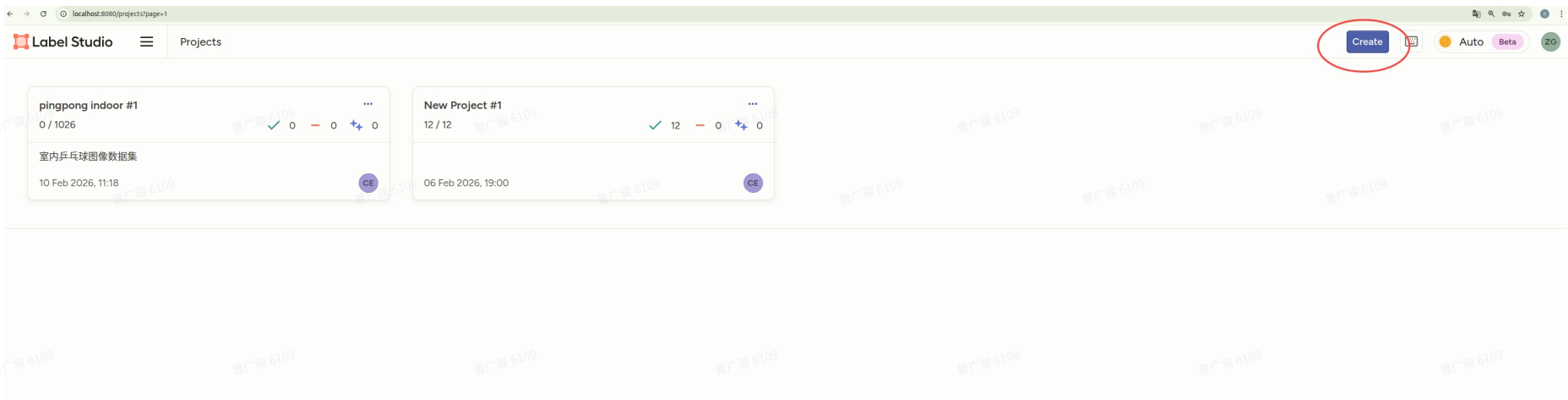
## 2. 导入数据集

在本地电脑中创建文件夹 label-studio-data, 再在里面创建一个子文件夹 indoor，将images放入其中:



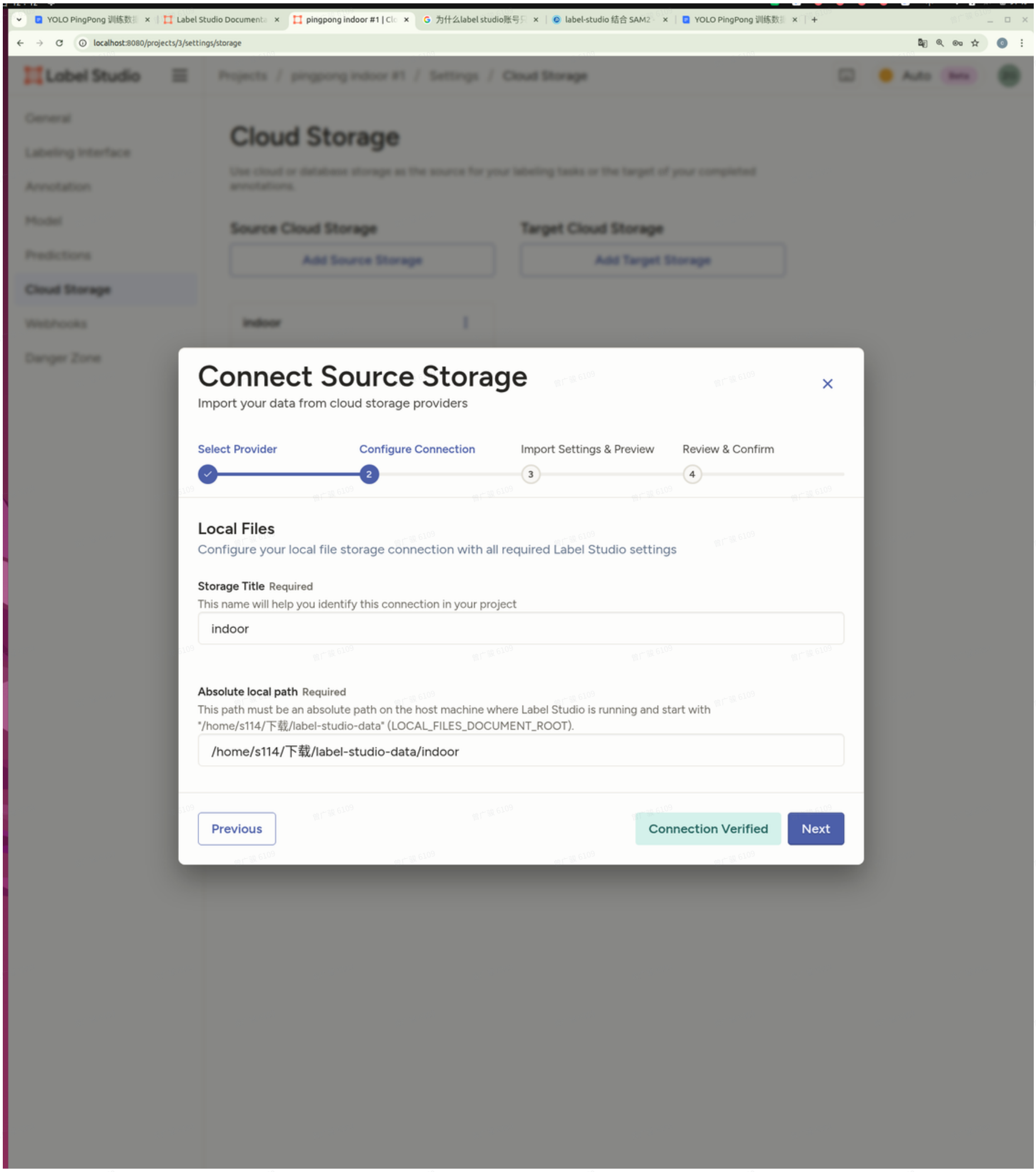

在label-studio文件夹的上一级目录（这里是“下载”）打开终端，启动 label-studio，会自动给这个文件夹开放连接权限

在label-studio主页创建一个新project:

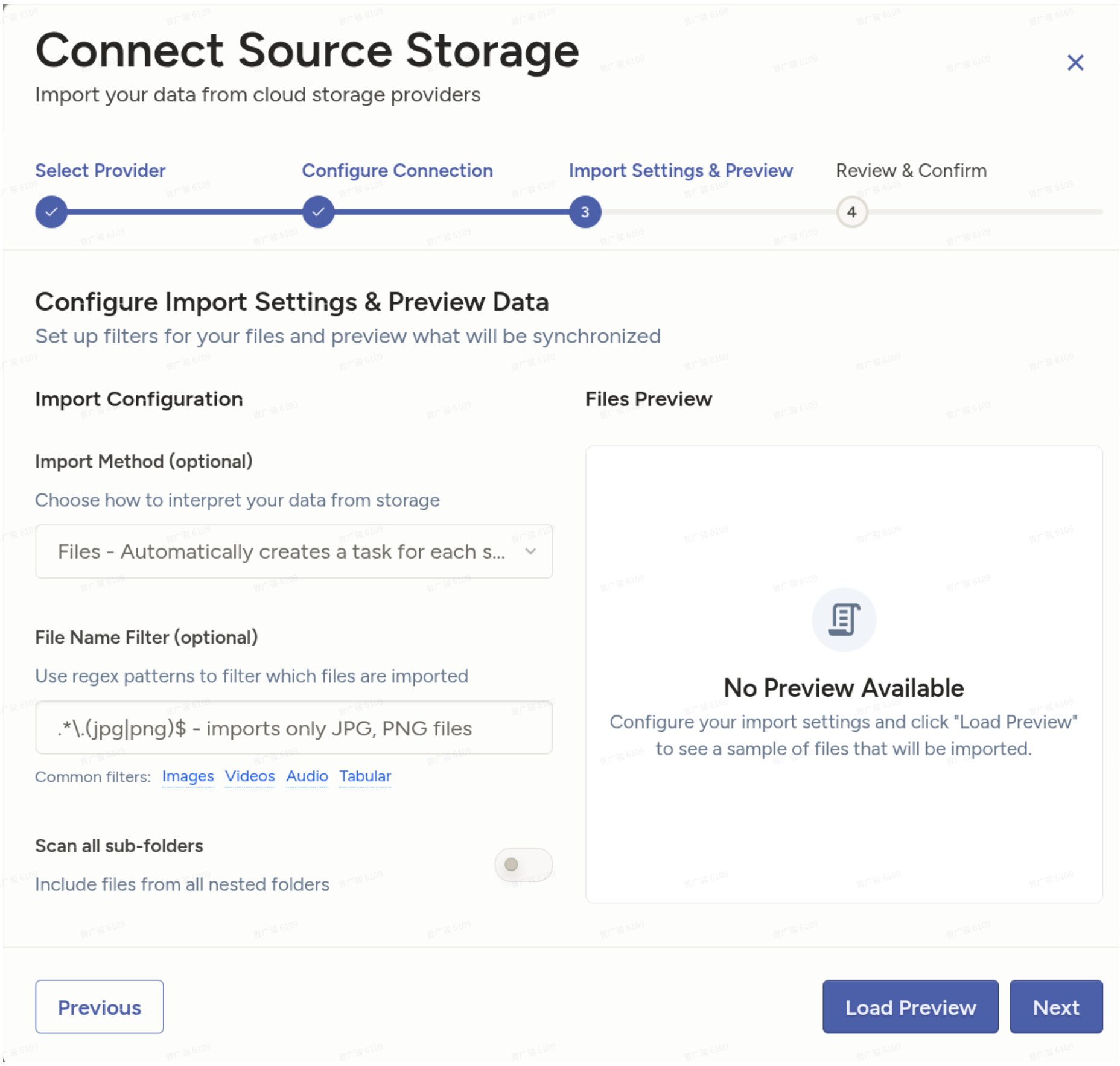



进入这个project,点击右上角Setting，进入后在左栏选择Cloud Storage，再点击"Add Source Storage",进去后选择"Local Files"

然后设置路径


localhost:8080/projects/3/settings/storage
Label Studio
Projects / pingpong indoor #1 / Settings / Cloud Storage
General
Labeling Interface
Annotation
Model
Predictions
Cloud Storage
Webhooks
Danger Zone
Cloud Storage
Use cloud or database storage as the source for your labeling tasks or the target of your completed annotations.
Source Cloud Storage
Add Source Storage
Target Cloud Storage
Add Target Storage
indoor
Connect Source Storage
Import your data from cloud storage providers
Select Provider
Configure Connection
Import Settings & Preview
Review & Confirm
2
3
4
Local Files
Configure your local file storage connection with all required Label Studio settings
Storage Title Required
This name will help you identify this connection in your project
indoor
Absolute local path Required
This path must be an absolute path on the host machine where Label Studio is running and start with "/home/s114/下载/label-studio-data" (LOCAL_FILES_DOCUMENT_ROOT).
/home/s114/下载/label-studio-data/indoor
Previous
Connection Verified
Next

再然后，选择文件类型




最后点击next进行save.

# 3. 标注方式

## 3.1 标签设置

进入这个project,点击右上角Setting，进入后在左栏选择Labeling Inferface，然后点击：

Label Studio

Projects / pingpong indoor #1 / Settings / Labeling Interface

- General
- Labeling Interface
- Annotation
- Model
- Predictions
- Cloud Storage
- Webhooks
- Danger Zone

# Labeling Interface

Browse Templates

Code | Visual

```
1 <View></View>
```

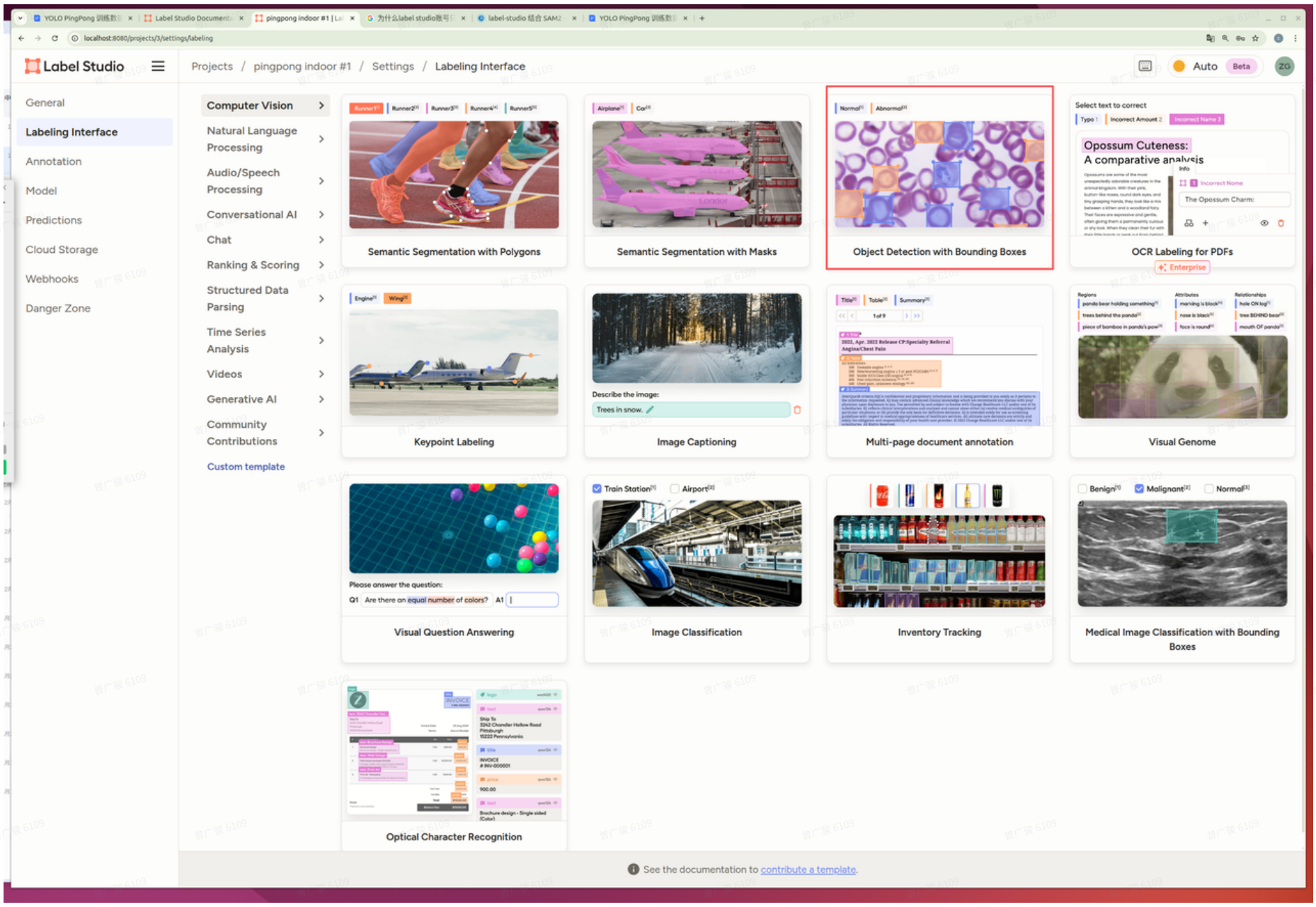
Configure the labeling interface with tags.
See all available tags.

Save

UI Preview

Regions | History | Relation

Manual | By Time


Label Studio
Projects / pingpong indoor #1 / Settings / Labeling Interface
Auto
Beta
General
Labeling Interface
Annotation
Model
Predictions
Cloud Storage
Webhooks
Danger Zone
Computer Vision
Natural Language Processing
Audio/Speech Processing
Conversational AI
Chat
Ranking & Scoring
Structured Data Parsing
Time Series Analysis
Videos
Generative AI
Community Contributions
Custom template
Semantic Segmentation with Polygons
Semantic Segmentation with Masks
Object Detection with Bounding Boxes
Select text to correct
Opossum Cuteness:
A comparative analysis
OCR Labeling for PDFs
Enterprise
Keypoint Labeling
Describe the image:
Trees in snow.
Image Captioning
Multi-page document annotation
Visual Genome
Please answer the question:
Q1 Are there an equal number of colors?
A1
Visual Question Answering
Train Station
Airport
Image Classification
Inventory Tracking
Benign
Malignant
Normal
Medical Image Classification with Bounding Boxes
Optical Character Recognition
See the documentation to contribute a template.

# Labeling Interface *

Browse Templates

Code | Visual

```
<View>
  <Image name="image" value="$image"/>
  <RectangleLabels name="label" toName="image">
    <Label value="pp" background="green"/>

  </RectangleLabels>
</View>
```

# Labeling Interface *

Browse Templates

Code | Visual

## Configure data

Use image from <set manually> $image

## Add label names

Use new line as a separator to add multiple labels

pp

Add

Labels (1)

pp

## Configure settings

Width of region borders 1

- [ ] Allow image zoom (ctrl+wheel)
- [ ] Show controls to zoom in and out
- [ ] Show controls to rotate image

Display labels: bottom

- [ ] Add filter for long list of labels

# Labeling Interface *

Browse Templates

Code | Visual

### Configure data

Use image from <set manually> $image

### Add label names

Use new line as a separator to add multiple labels

pp

Add

### Labels (1)

pp

### Configure settings

Width of region borders 1

- [ ] Allow image zoom (ctrl+wheel)
- [ ] Show controls to zoom in and out
- [ ] Show controls to rotate image

Display labels: bottom

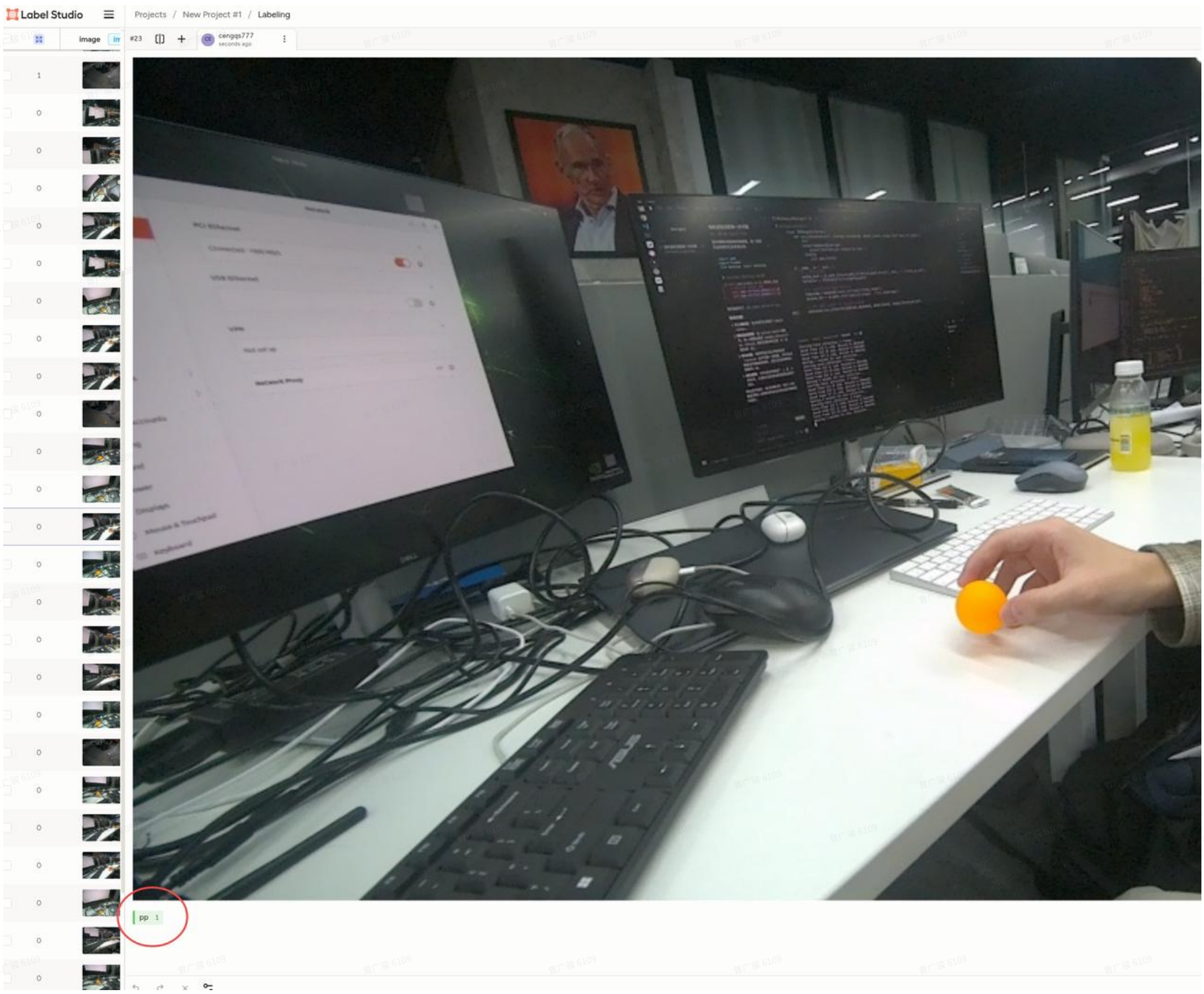
- [ ] Add filter for long list of labels

Save

最后保存设置。

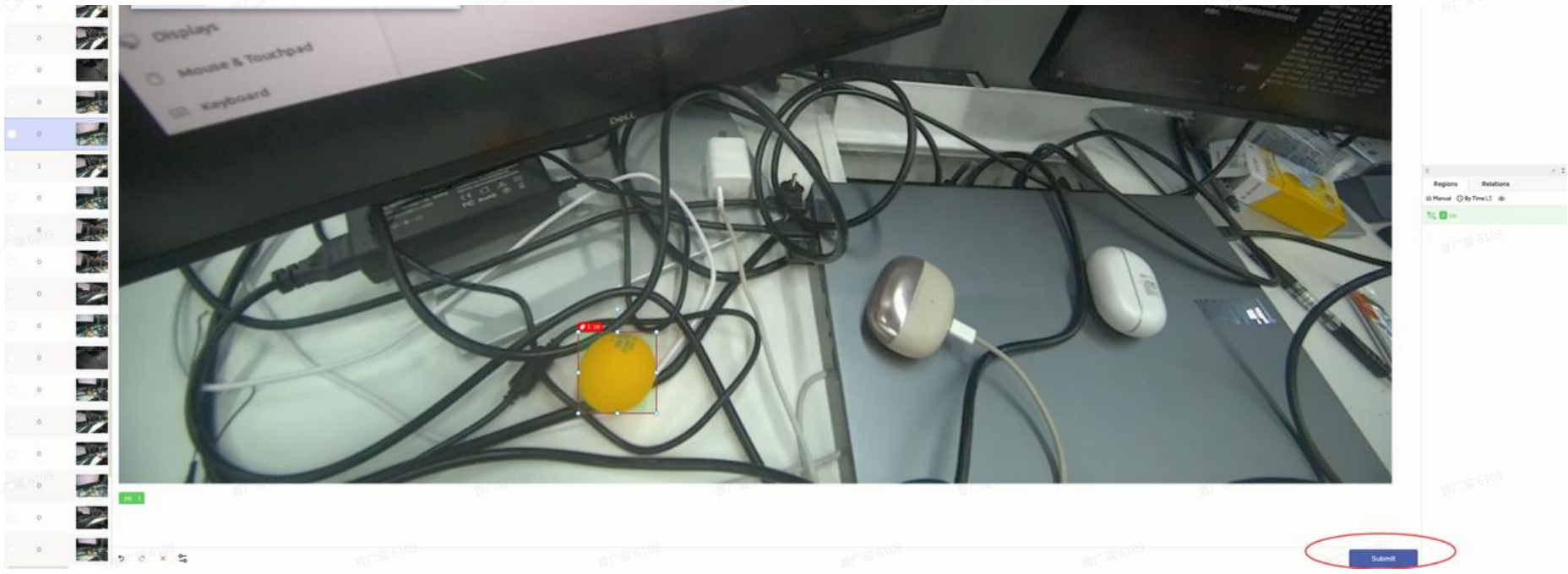
## 3.2 标注流程

首先，点击左下角的绿色方块




其次，在图中点击拖动鼠标框出乒乓球，注意框的四条边尽量贴到球的边缘

最后，点击右下角的“submit"，即完成一张的标注。

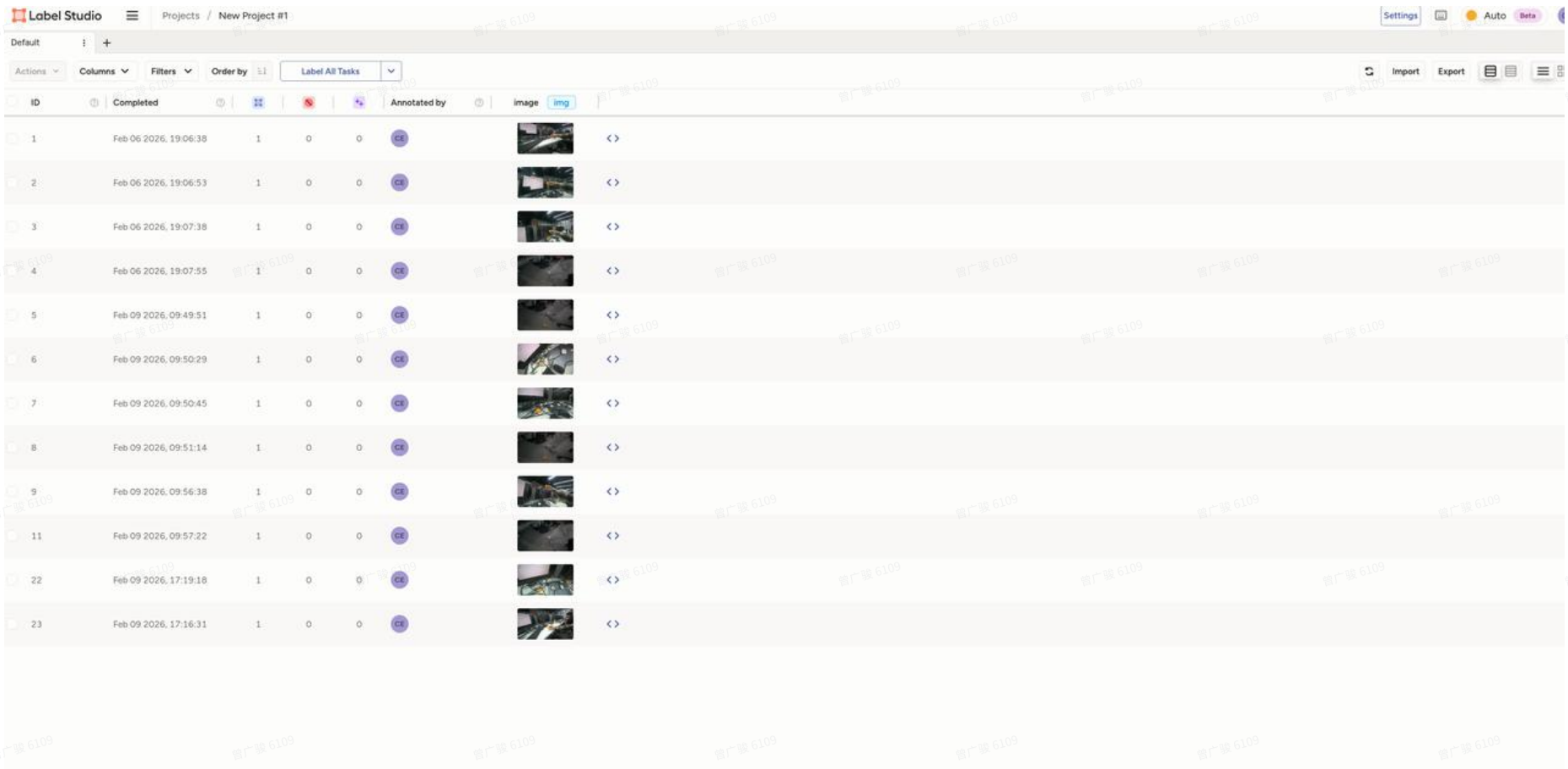



# 4. 注意事项：

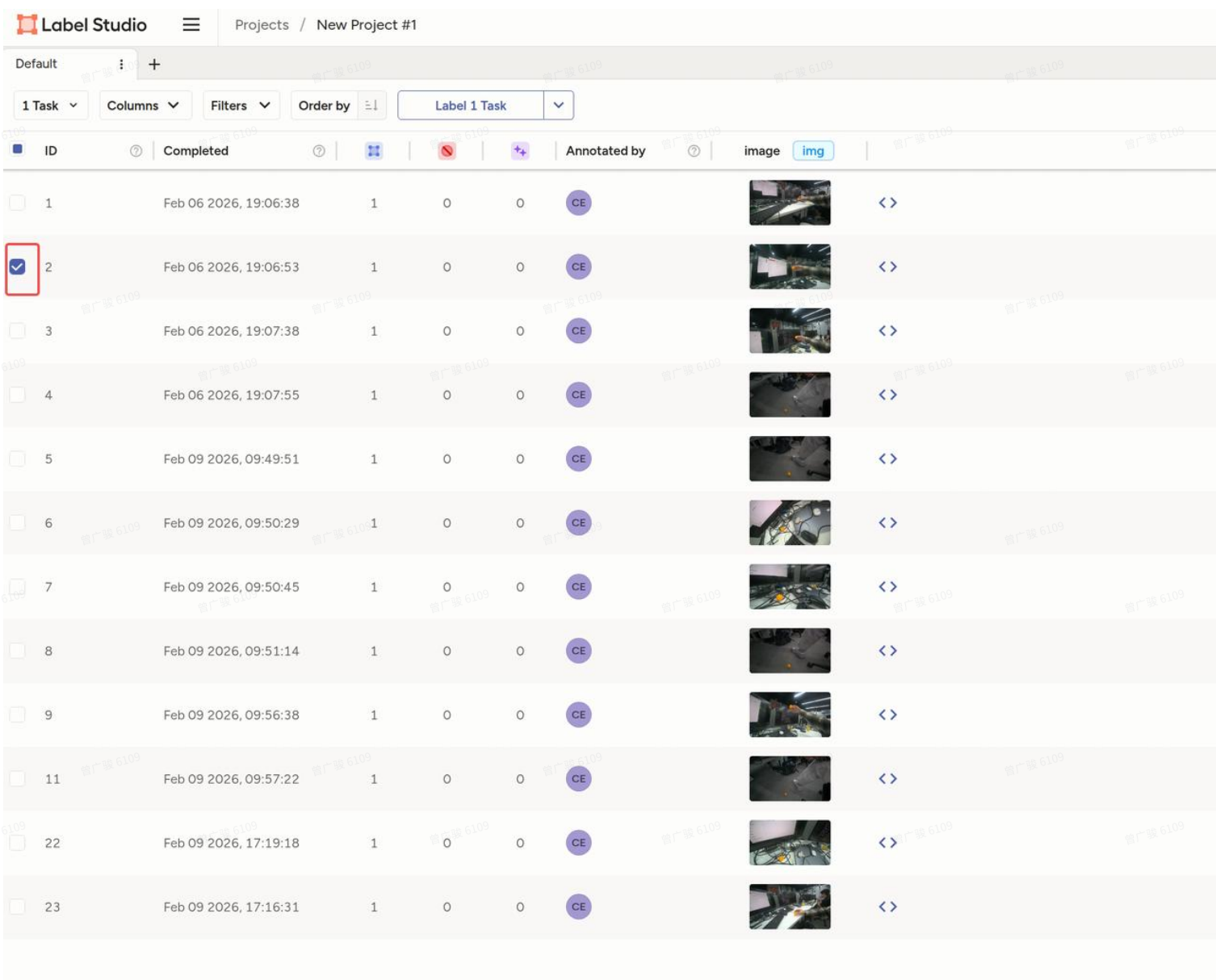
## 4.1.1 若存在图中没有球的情况，直接将这张图删去。

删除方式：

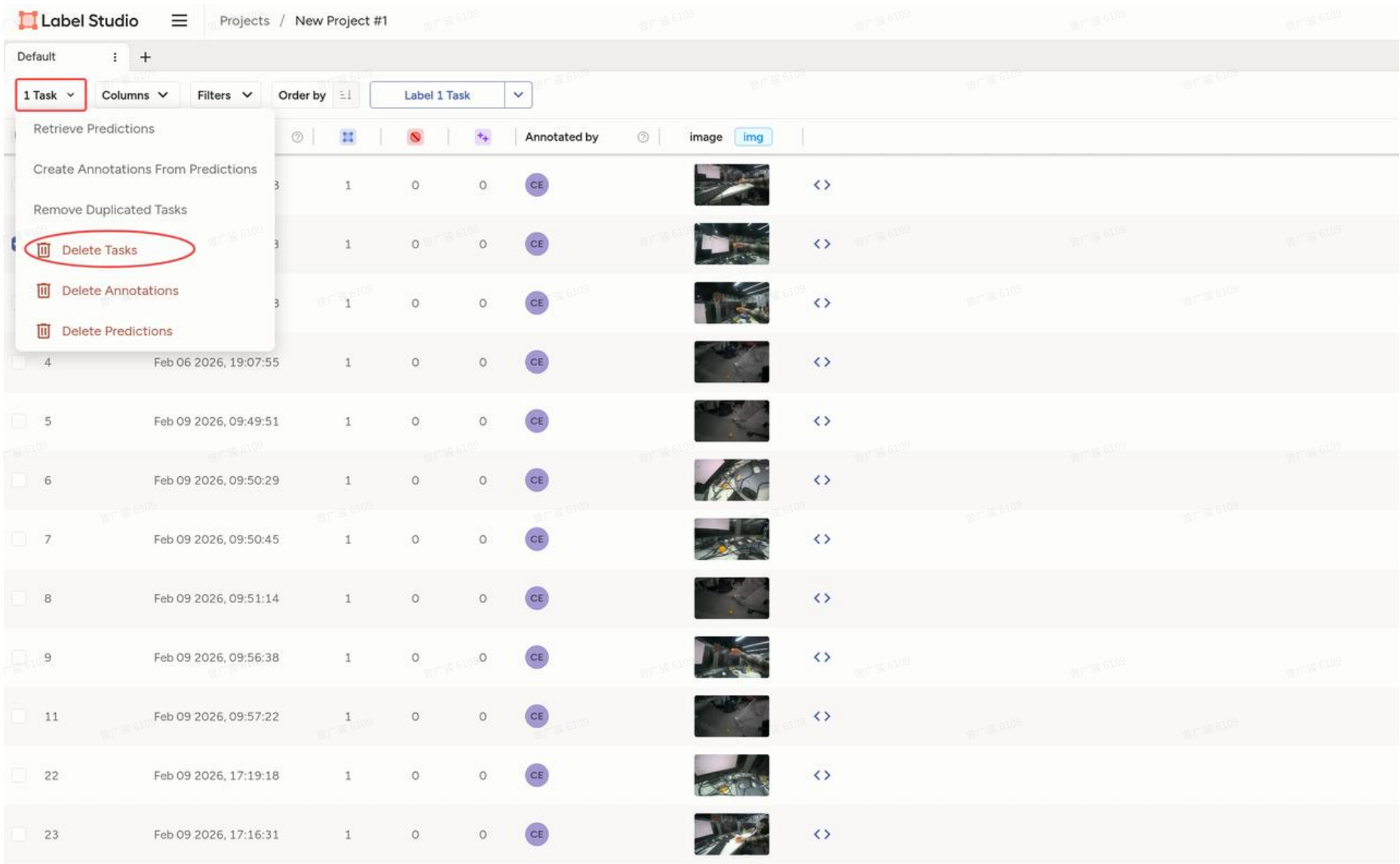
首先，回到project主页面：




其次，在最左侧将需要删去图的小正方形方框点击勾选




然后，点击“1 Task”的下拉小箭头，再点击“Delete Tasks"即可删除。




## 5. 导出数据集

回到project主页，点击右上角 Export


导出格式为 YOLO witg images