

# Installation Guide for CVAT on Ubuntu: Step-by-Step Instructions

## Using CVAT for Image and Video Annotation

Website url:- <https://docs.cvat.ai/docs/administration/basics/installation/>

### 1. Introduction

CVAT (Computer Vision Annotation Tool) is a powerful tool designed for annotating images and videos for machine learning and computer vision applications. This guide provides detailed instructions on how to install CVAT on an Ubuntu system.

### 2. Prerequisites

🔗 System **Requirements**: Ensure your system meets the necessary hardware and software requirements.

🔗 Required **Software**: Docker and Docker Compose are required for CVAT installation.

🔗 Basic **Knowledge**: Familiarity with terminal commands and basic Docker usage is assumed.

### 3.Preparing Your Ubuntu System

#### Updating the System:

#### Commands:

- `sudo apt update`
- `sudo apt upgrade`
- `sudo apt-get --no-install-recommends install -y \`  
    `apt-transport-https \`  
    `ca-certificates \`  
    `curl \`  
    `gnupg-agent \`  
    `software-properties-common`
- `curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -`
- `sudo add-apt-repository \`  
    `"deb [arch=amd64] https://download.docker.com/linux/ubuntu \`  
    `$(lsb_release -cs) \`  
    `stable"`
- `sudo apt-get update`
- `sudo apt-get --no-install-recommends install -y \`
- `docker-ce docker-ce-cli containerd.io docker-compose-plugin`

## Add User to Docker Group

- `sudo groupadd docker`
- `sudo usermod -aG docker $USER`

## Clone CVAT Repository

- `sudo apt install git`
- `git clone https://github.com/cvat-ai/cvat`
- `cd cvat`

## Start CVAT Using Docker Compose:

- `docker compose up -d`

## Accessing CVAT

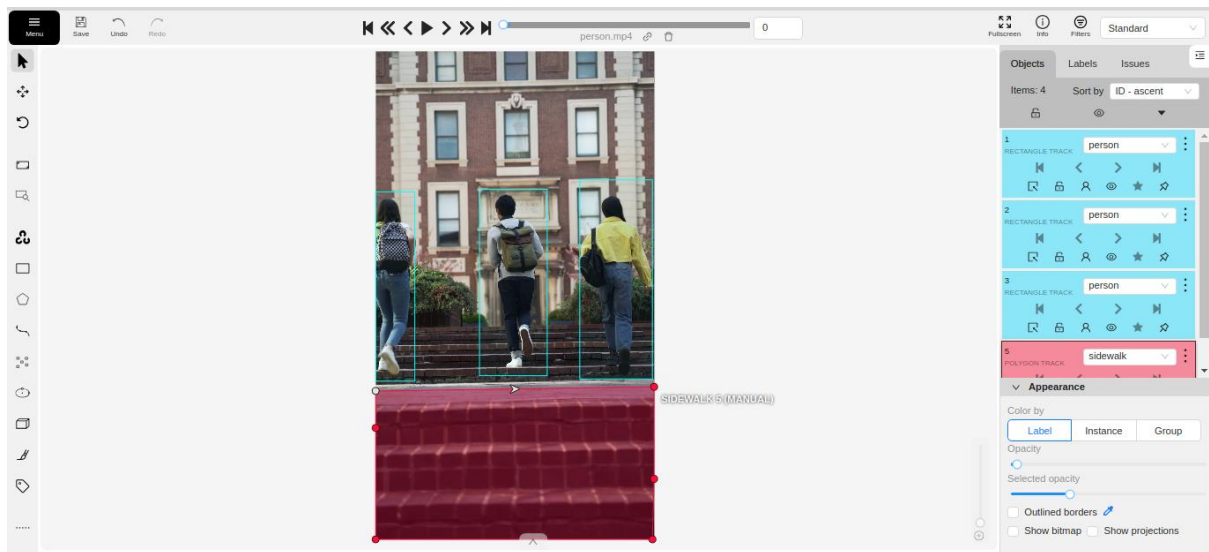
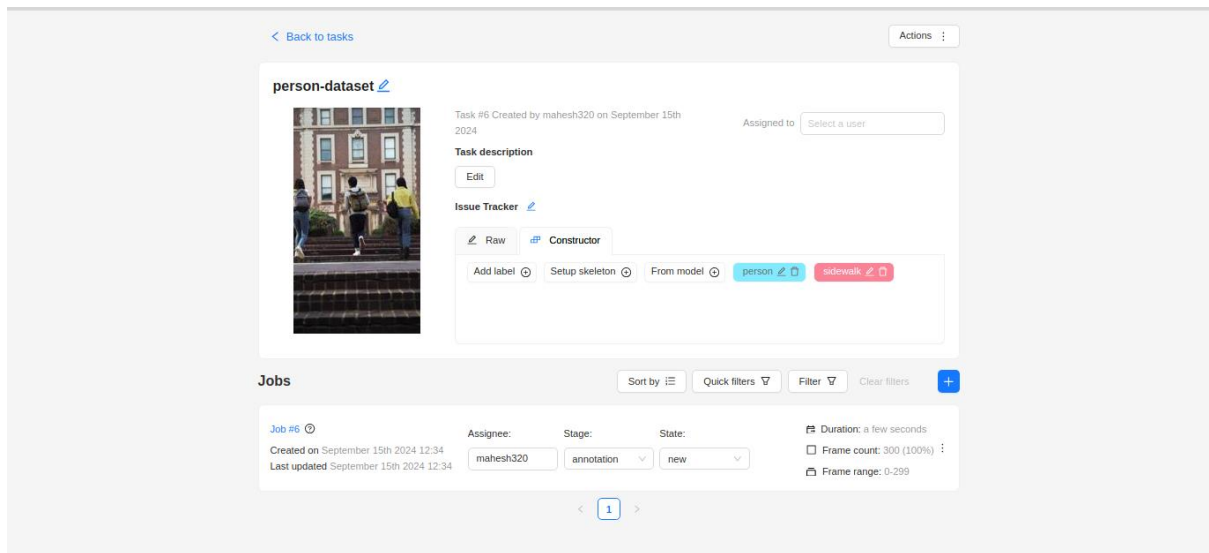
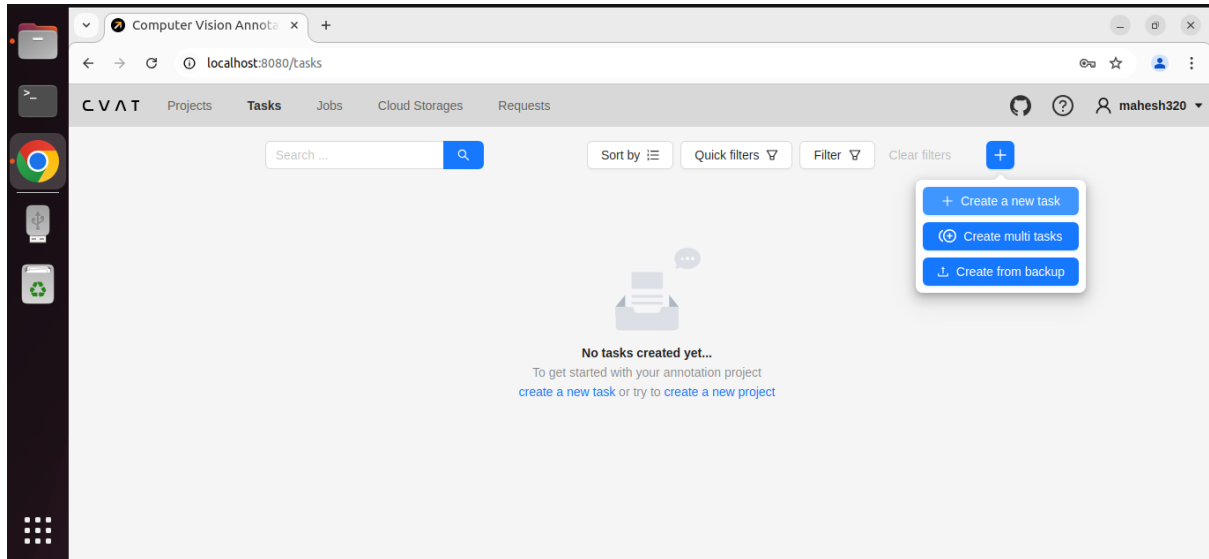
- Navigate to the CVAT web interface using your browser at `http://localhost:8080`.

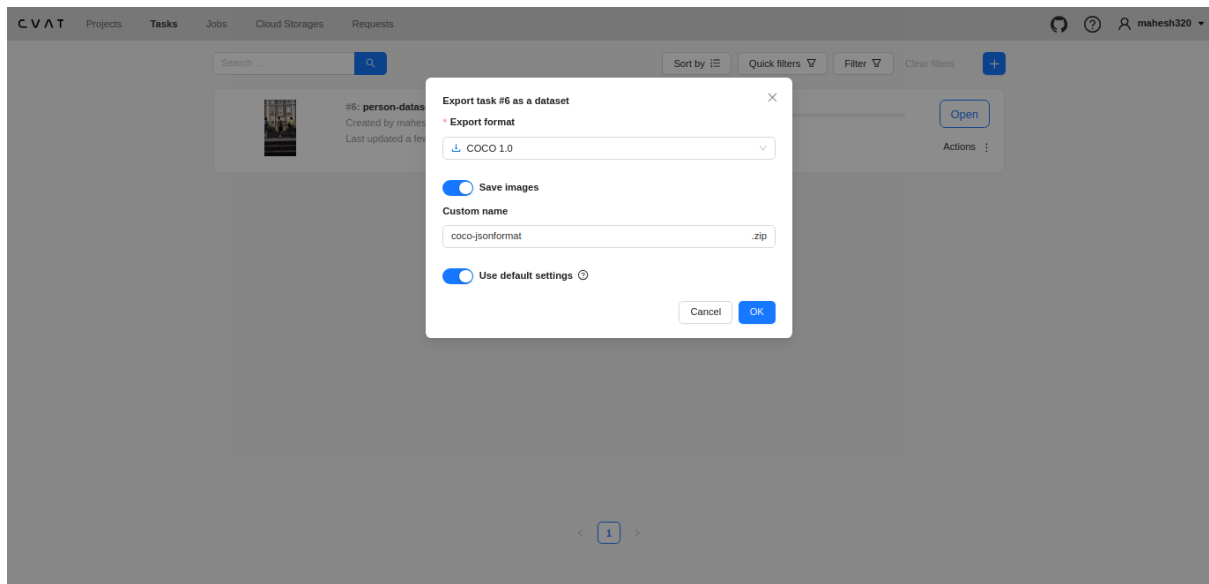
## Images

```
root@cair-VirtualBox: ~/cvat
[+] Running 0/17
  cvat_worker_import Pulling                               4.7s
  cvat_clickhouse Pulling                                  4.7s
  cvat_vector Pulling                                      4.7s
  cvat_worker_webhooks Pulling                             4.7s
  cvat_db Pulling                                          4.7s
  cvat_server Pulling                                      4.7s
  cvat_redis_ondisk Pulling                                4.7s
  traefik Pulling                                          4.7s
  cvat_grafana Pulling                                     4.7s
  cvat_worker_quality_reports Pulling                      4.7s
  cvat_worker_annotation Pulling                          4.7s
  cvat_redis_inmem Pulling                                 4.7s
  cvat_opa Pulling                                         4.7s
  cvat_ui Pulling                                          4.7s
  cvat_utils Pulling                                       4.7s
  cvat_worker_export Pulling                               4.7s
  cvat_worker_analytics_reports [                        ] Pulling 4.7s
```

```
root@cair-VirtualBox: ~/cvat
✓ cvat_opa Pulled                                           93.2s
✓ cvat_ui Pulled                                           143.7s
✓ cvat_utils Pulled                                         471.0s
✓ cvat_worker_export Pulled                                 471.2s
✓ cvat_worker_analytics_reports Pulled                     471.0s
[+] Running 22/25
✓ Network cvat_cvat Created                                1.2s
✓ Volume "cvat_cvat_inmem_db" Created                      0.0s
✓ Volume "cvat_cvat_data" Created                          0.0s
✓ Volume "cvat_cvat_keys" Created                          0.0s
✓ Volume "cvat_cvat_logs" Created                          0.0s
✓ Volume "cvat_cvat_cache_db" Created                      0.0s
✓ Volume "cvat_cvat_events_db" Created                     0.0s
✓ Volume "cvat_cvat_db" Created                            0.0s
✓ Container cvat_clickhouse Started                       14.7s
✓ Container cvat_db Started                                14.7s
✓ Container cvat_redis_inmem Started                       16.2s
✓ Container traefik Started                                20.8s
✓ Container cvat_redis_ondisk Started                      17.7s
✓ Container cvat_opa Started                               17.5s
✓ Container cvat_grafana Started                           15.4s
✓ Container cvat_vector Started                            31.8s
✓ Container cvat_worker_quality_reports Started            41.3s
✓ Container cvat_worker_export Started                     48.6s
✓ Container cvat_worker_webhooks Started                   52.6s
✓ Container cvat_worker_annotation Started                 52.3s
✓ Container cvat_worker_analytics_reports Started          52.6s
✓ Container cvat_server Started                            46.1s
✓ Container cvat_worker_import Started                     51.1s
✓ Container cvat_utils Started                             48.6s
✓ Container cvat_ui Started                                51.3s
```

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- **Navigate to Export Options:** Locate the export functionality within the task's dashboard.
- **Choose COCO Format:** Select COCO from the available export formats.
- **Export and Download:** Click on the export button to generate and download the COCO format file (in JSON format).

For further discussion or questions, feel free to connect with me on LinkedIn