# Lab 3 Assignment CS203……

Team 31
Vansh Kumar (23110351)
Aditya Jain (23110016)

**GitHub URL:** https://github.com/VanshOnGit/CS-203-Assignment-3

## Task 1: Environment Setup

- Execute the “history -c && history -w” command. It should clear all the history of the specific user

```
vansh@ubuntu:~$ history -c && history -w
vansh@ubuntu:~$ _
```

This command clears the user's command history for the session and writes the changes to the history file.

- Execute the “history” command and take the screenshot.

```
vansh@ubuntu:~$ history -c && history -w
vansh@ubuntu:~$ history
    1  history
vansh@ubuntu:~$ _
```

This command displays the user's current command history, which should now be empty

- Execute command “sudo apt list | grep -i python3.10”. If the package for Python 3.10 is installed, then it is removed.

```
vansh@ubuntu:~$ sudo apt list | grep -i pythonn3.10

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

vansh@ubuntu:~$ _
```

This command lists available packages matching Python 3.10 and removes it if installed.

---

- Download and install Python 3.10 using tarball.

```
vansh@ubuntu:~$ wget https://www.python.org/ftp/python/3.10.16/Python-3.10.16.tgz
--2025-01-26 05:32:19--  https://www.python.org/ftp/python/3.10.16/Python-3.10.16.tgz
Resolving www.python.org (www.python.org)... 146.75.44.223, 2a04:4e42:48::223
Connecting to www.python.org (www.python.org)|146.75.44.223|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 25942994 (25M) [application/octet-stream]
Saving to: ‘Python-3.10.16.tgz’

Python-3.10.16.tgz                  100%[=============================================================================>]  24.74M  3.94MB/s    in 6.3s

2025-01-26 05:32:26 (3.92 MB/s) - ‘Python-3.10.16.tgz’ saved [25942994/25942994]

vansh@ubuntu:~$ _
```

This command downloads the tarball (compressed source code) for Python 3.10.

- This command extracts the downloaded tarball

```
vansh@ubuntu:~$ tar -xvzf Python-3.10.16.tgz
Python-3.10.16/Tools/unicode/gencodec.py
Python-3.10.16/Tools/unicode/genmap_japanese.py
Python-3.10.16/Tools/unicode/genmap_korean.py
Python-3.10.16/Tools/unicode/genmap_schinese.py
Python-3.10.16/Tools/unicode/genmap_support.py
Python-3.10.16/Tools/unicode/genwincodec.py
Python-3.10.16/Tools/unicode/genwincodecs.bat
Python-3.10.16/Tools/unicode/listcodecs.py
Python-3.10.16/Tools/unicode/makeunicodedata.py
Python-3.10.16/Tools/unicode/mkstringprep.py
Python-3.10.16/Tools/unicode/python-mappings/
Python-3.10.16/Tools/unicode/python-mappings/CP1140.TXT
Python-3.10.16/Tools/unicode/python-mappings/CP273.TXT
Python-3.10.16/Tools/unicode/python-mappings/GB2312.TXT
Python-3.10.16/Tools/unicode/python-mappings/KOI8-U.TXT
Python-3.10.16/Tools/unicode/python-mappings/TIS-620.TXT
Python-3.10.16/Tools/unicode/python-mappings/diff/
Python-3.10.16/Tools/unicode/python-mappings/diff/jisx0213-2000-std.txt.diff
Python-3.10.16/Tools/unicode/python-mappings/diff/jisx0213-2004-std.txt.diff
Python-3.10.16/Tools/unicode/python-mappings/gb-18030-2000.xml
Python-3.10.16/Tools/unicode/python-mappings/jisx0213-2004-std.txt
Python-3.10.16/Tools/unittestgui/
Python-3.10.16/Tools/unittestgui/README.txt
Python-3.10.16/Tools/unittestgui/unittestgui.py
Python-3.10.16/aclocal.m4
Python-3.10.16/config.guess
Python-3.10.16/config.sub
Python-3.10.16/configure
Python-3.10.16/configure.ac
Python-3.10.16/install-sh
Python-3.10.16/pyconfig.h.in
Python-3.10.16/setup.py
```

Python3.10 --version

```
vansh@ubuntu:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Python-3.10.16  Python-3.10.16.tgz  snap  Templates  Videos
vansh@ubuntu:~$ cd Python-3.10.16
vansh@ubuntu:~/Python-3.10.16$ python3.10 --version
Python 3.10.16
vansh@ubuntu:~/Python-3.10.16$
```

This verifies that Python 3.10 was installed successfully

- Make Pip environment using newly installed python3.10

---

Create a virtual environment:

```
vansh@ubuntu:~/Python-3.10.16$ python3.10 -m venv labelstudio_env
vansh@ubuntu:~/Python-3.10.16$ _
```

This creates a virtual environment named 'labelstudio_env' using Python 3.10.

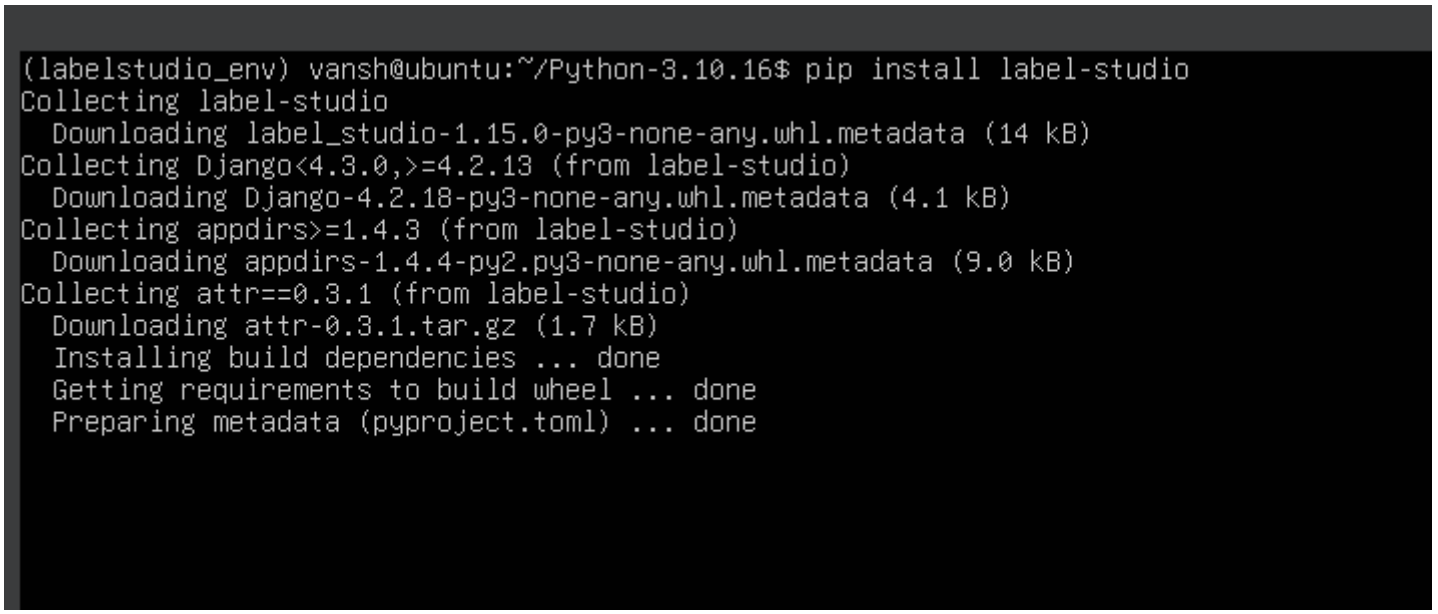
---

Activate the virtual environment:

```
vansh@ubuntu:~/Python-3.10.16$ python3.10 -m venv labelstudio_env
vansh@ubuntu:~/Python-3.10.16$ source labelstudio_env/bin/activate
(labelstudio_env) vansh@ubuntu:~/Python-3.10.16$
```

This activates the virtual environment

- Install label studio using pip.



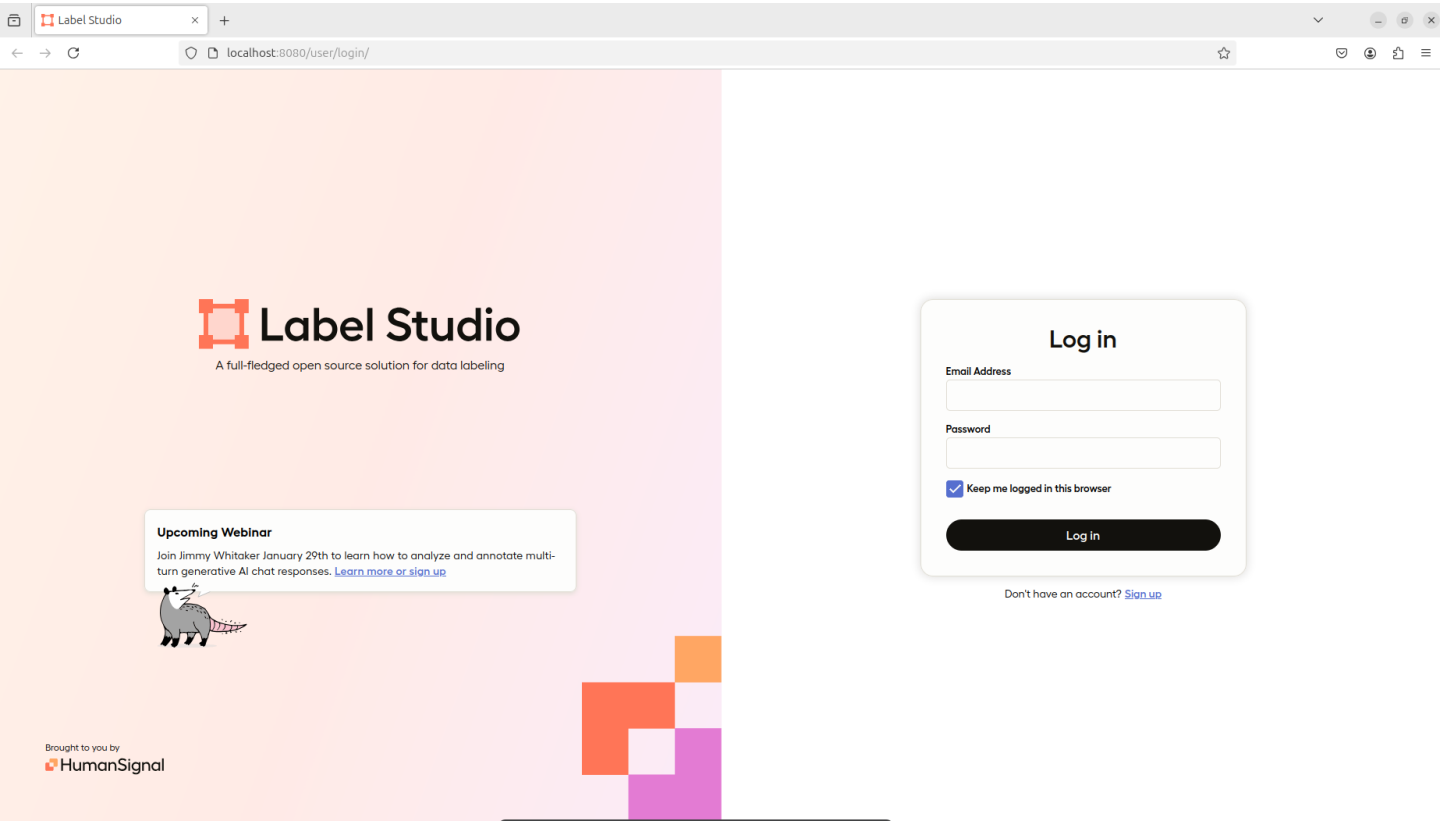

This installs Label Studio in the pip environment

# Open, Register, and Check Label Studio on the web browser.

1. Start Label Studio

```
(labelstudio_env) vansh@ubuntu:~/Python-3.10.16$ label-studio start
=> Database and media directory: /home/vansh/.local/share/label-studio
=> Static URL is set to: /static/
=> Database and media directory: /home/vansh/.local/share/label-studio
=> Static URL is set to: /static/
Read environment variables from: /home/vansh/.local/share/label-studio/.env
get 'SECRET_KEY' casted as '<class 'str'>' with default ''


Starting new HTTPS connection (1): pypi.org:443
https://pypi.org:443 "GET /pypi/label-studio/json HTTP/1.1" 200 33651
Initializing database..
January 26, 2025 - 06:40:21
Django version 4.2.18, using settings 'label_studio.core.settings.label_studio'
Starting development server at http://0.0.0.0:8080/
Quit the server with CONTROL-C.

_
```

This starts the Label Studio server

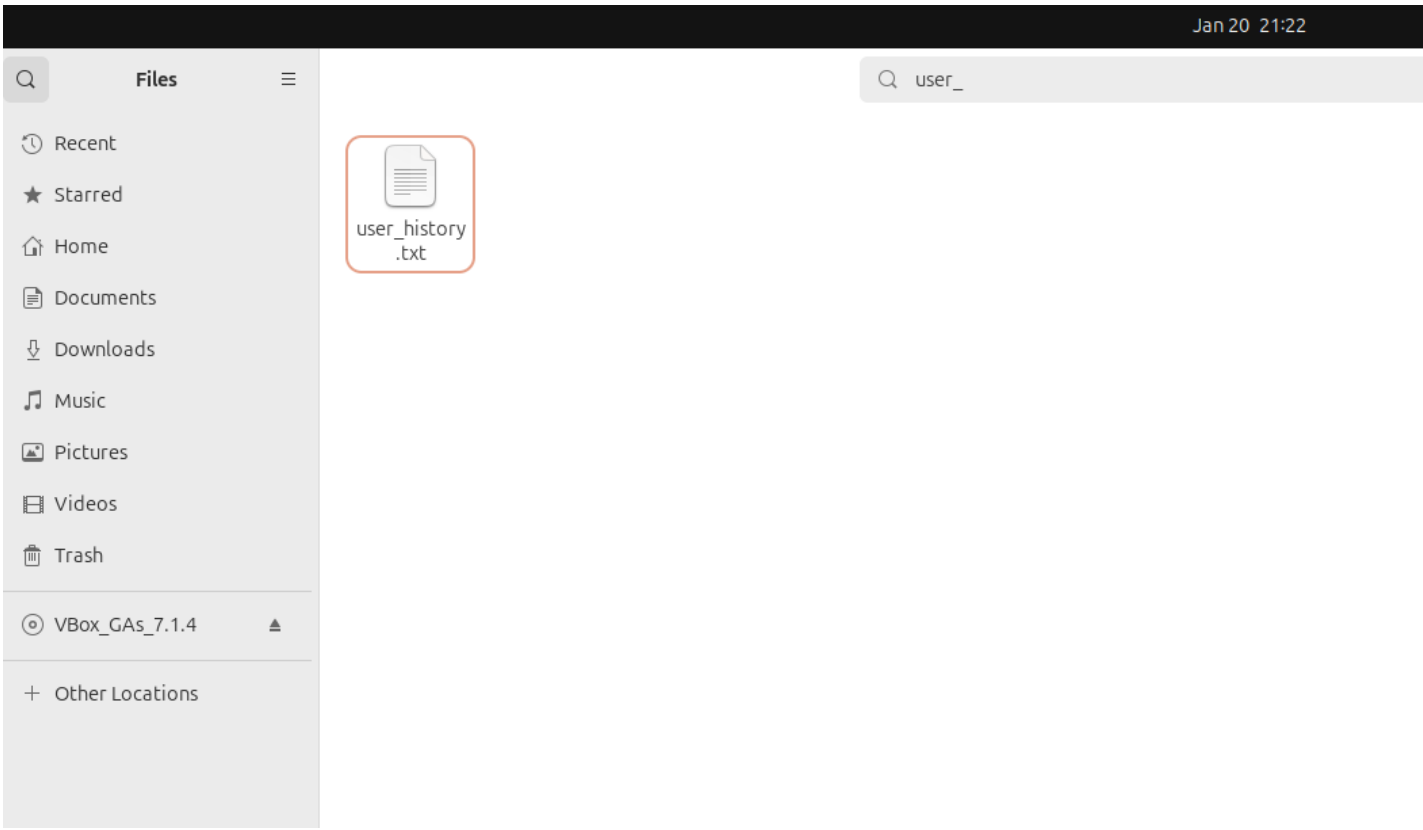


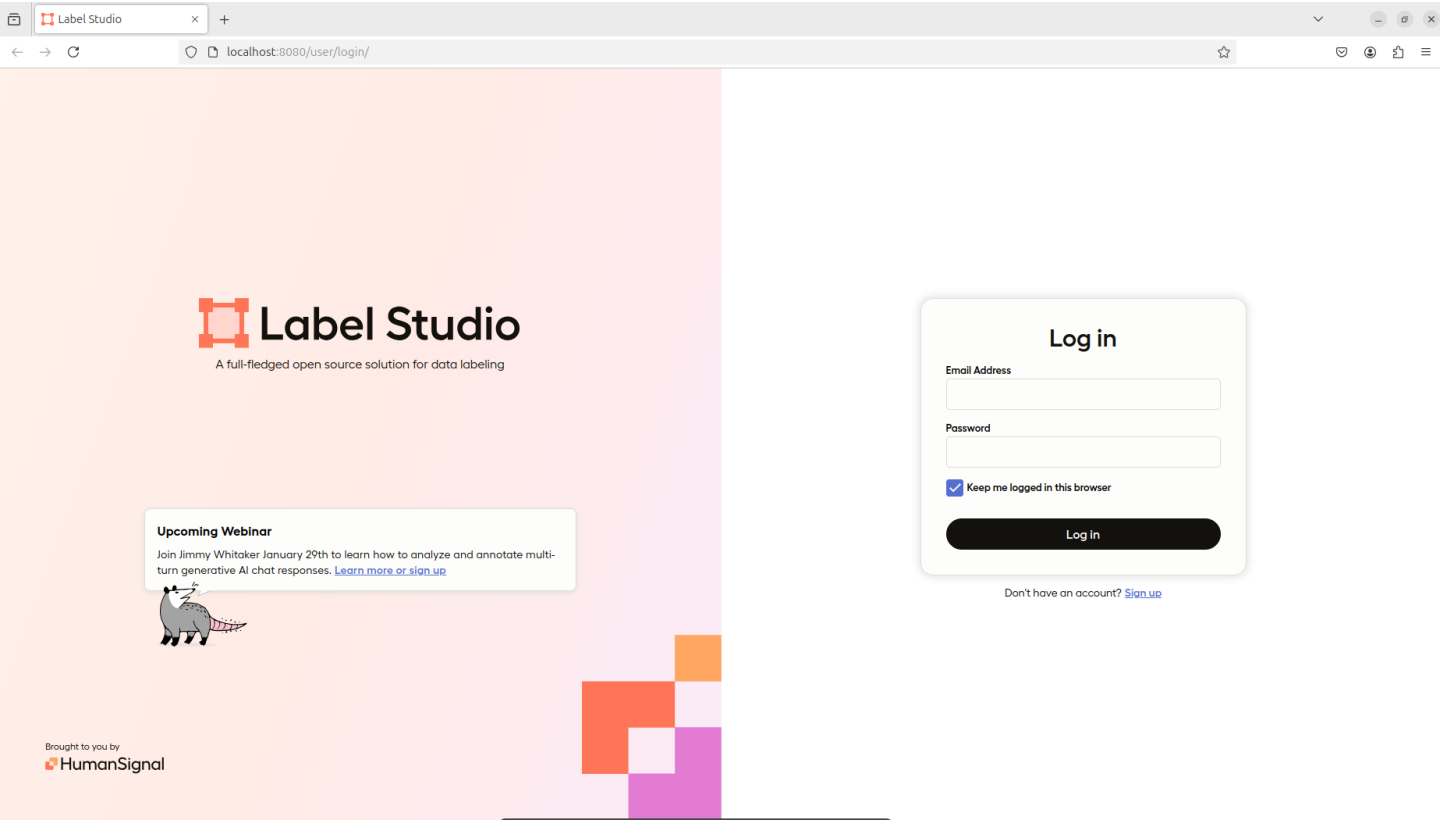

This shows Label Studio running in a web browser.

•**Execute “history > user_history.txt.” Upload user_history.txt file on Git Hub.**

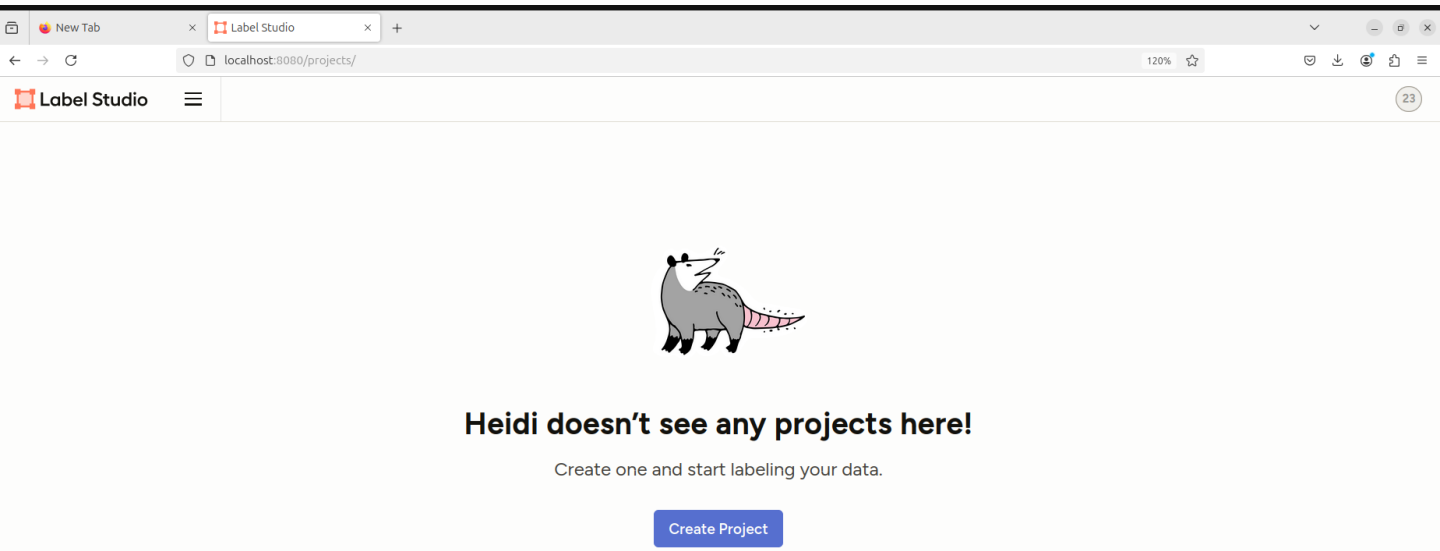
```
(labelstudio_env) vansh@ubuntu:~/Python-3.10.16$ history > user_history.txt
(labelstudio_env) vansh@ubuntu:~/Python-3.10.16$
```

This saves the current session's command history to a file named 'user_history.txt’. It is in our GitHub Repository






This shows Label Studio running in a web browser and now we login



# Task 2: Annotating a Dataset Using Label Studio

We are in group 31 so we need data points from 600 to 619 so we need to remove the data points we don't need so we do that using python

Open

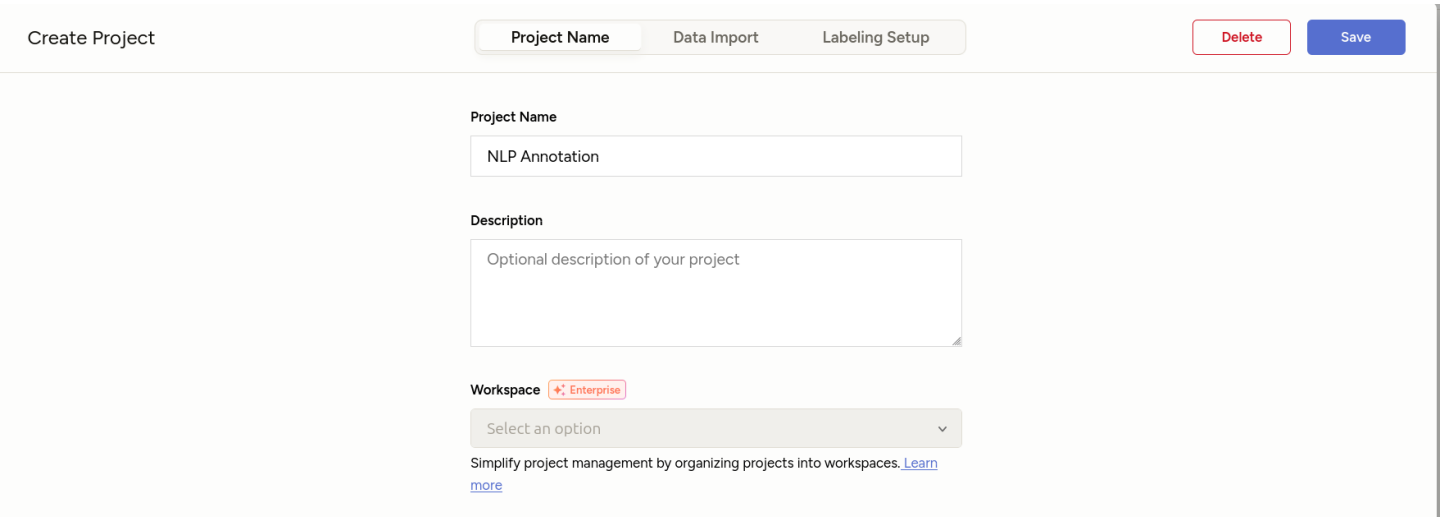
FilterData.py
~/Desktop/Assignment3

```python
import pandas as pd

file_path = "/home/vansh/Desktop/Assignment3/NLP.csv"

df = pd.read_csv(file_path)

filtered_df = df.iloc[600:620]

filtered_df.to_csv(file_path, index=False)

print("Data points from 600 to 619 are saved.")
```

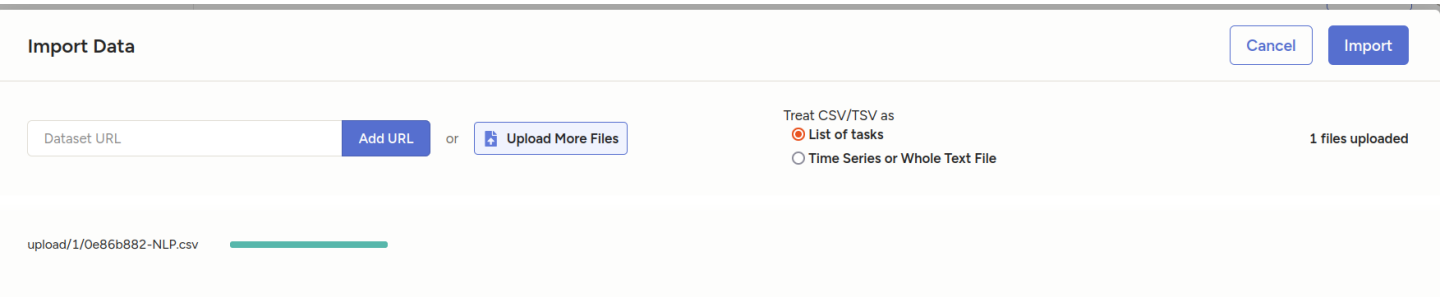
vansh@vansh: ~/Desktop/Assignment3

```
vansh@vansh:~/Desktop/Assignment3$ python3 FilterData.py
Data points from 600 to 619 are saved.
vansh@vansh:~/Desktop/Assignment3$
```

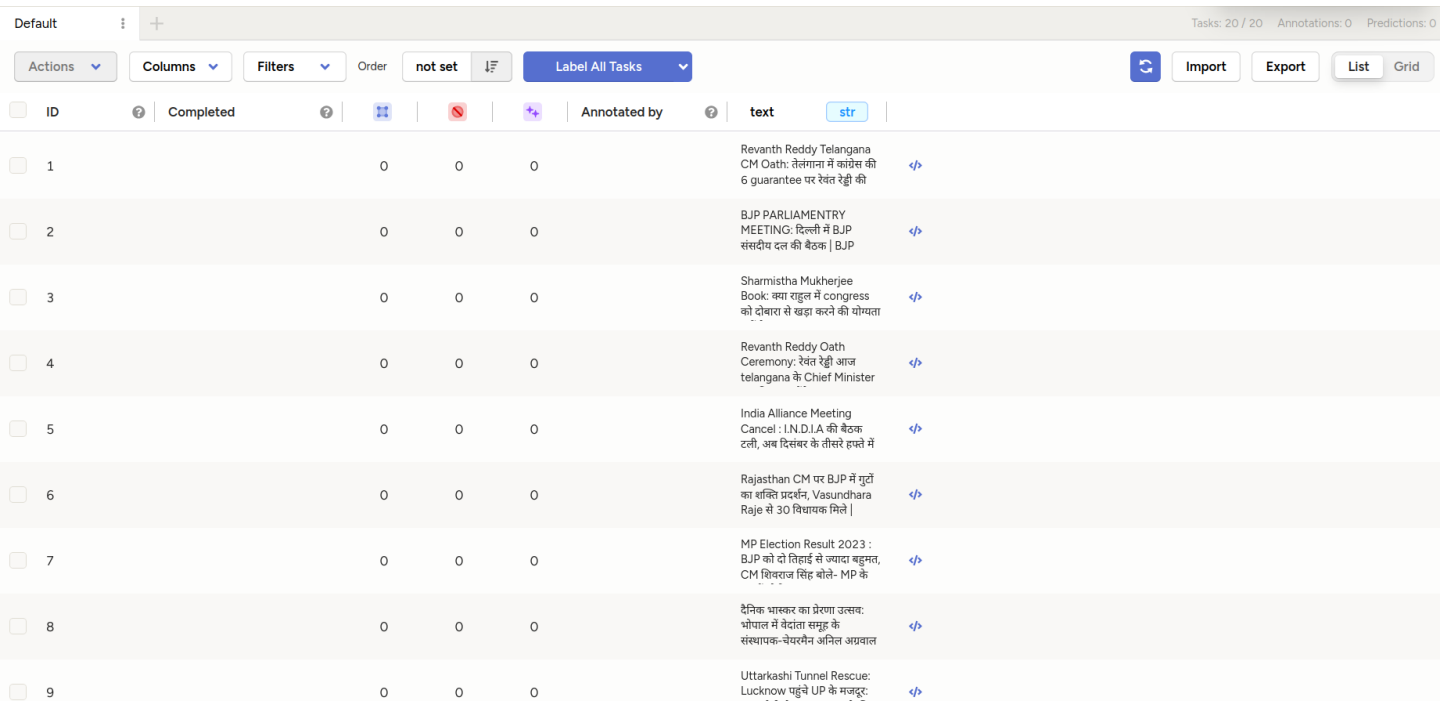
# Import NLP Dataset



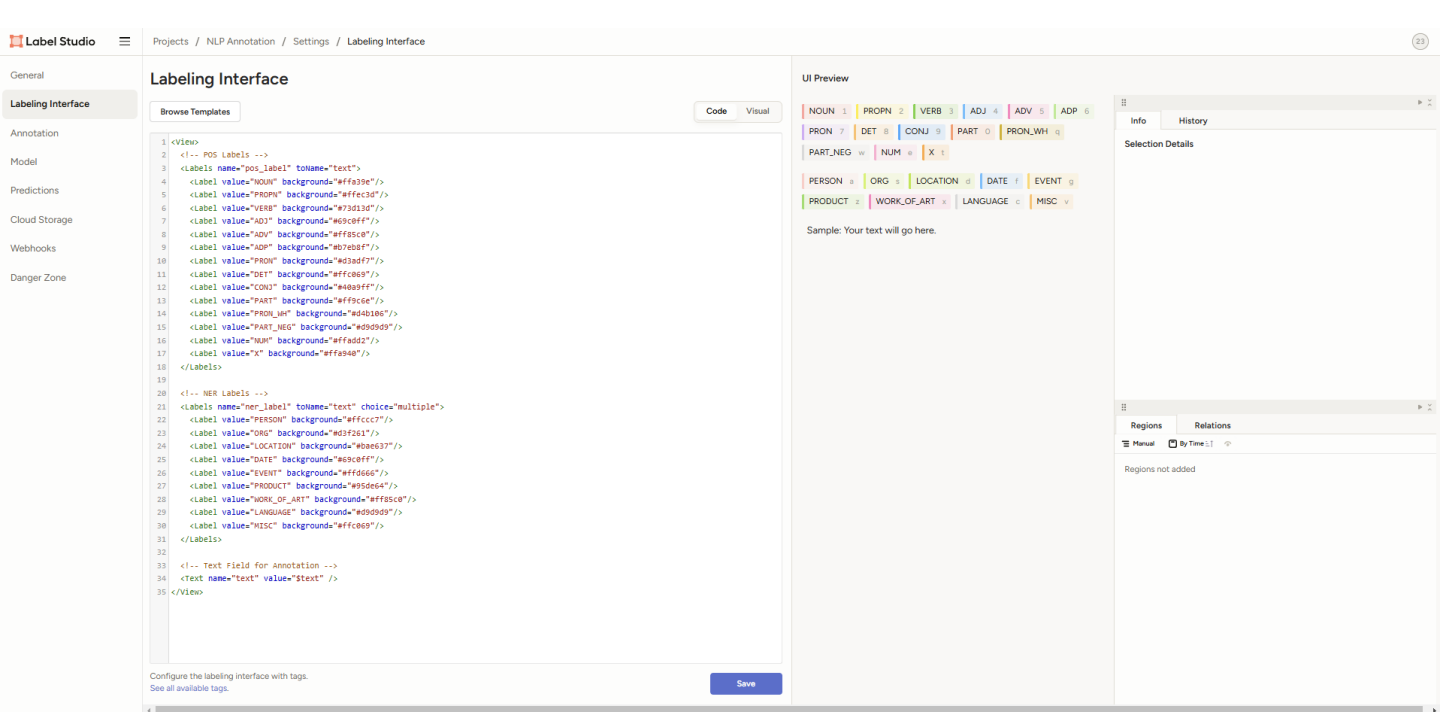

This shows the creation of a new project for annotating NLP data



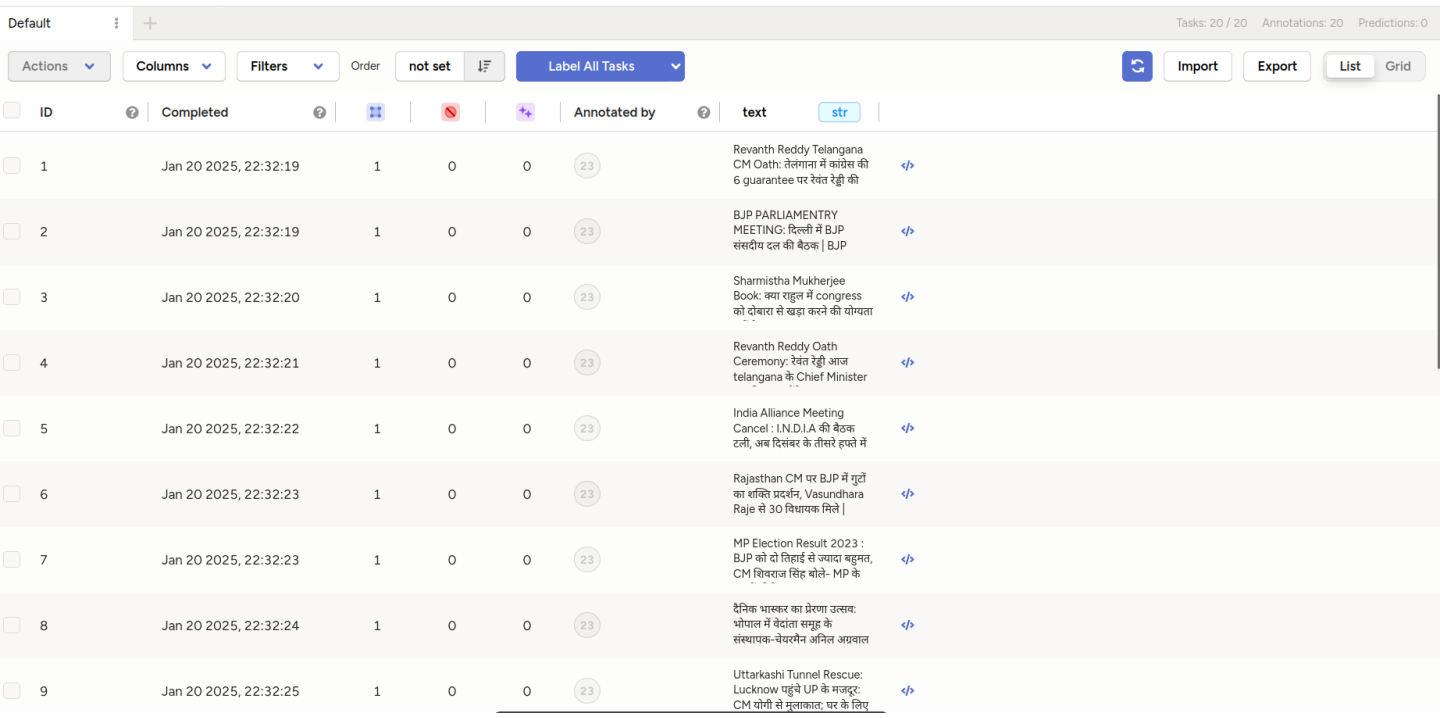

Importing nlp data



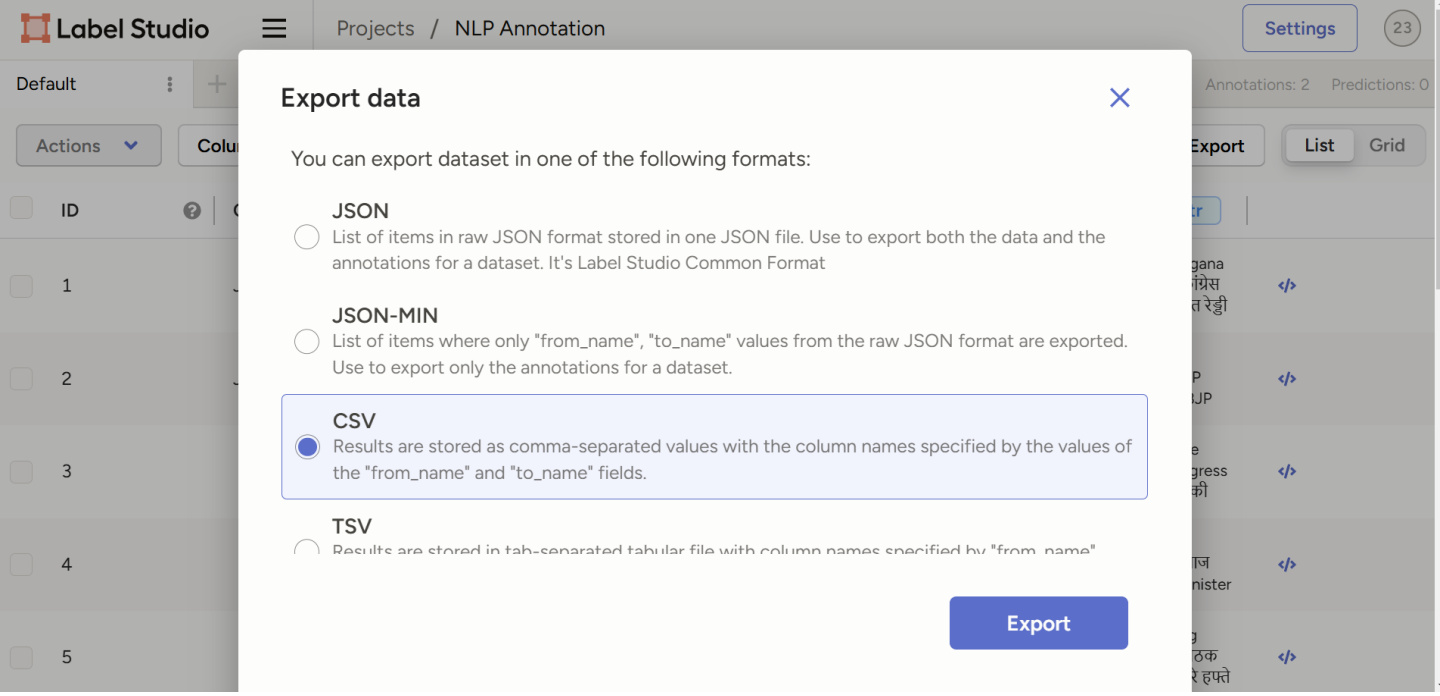

Data imported




# Adding POS tagging and NER functionality in the Label Setup

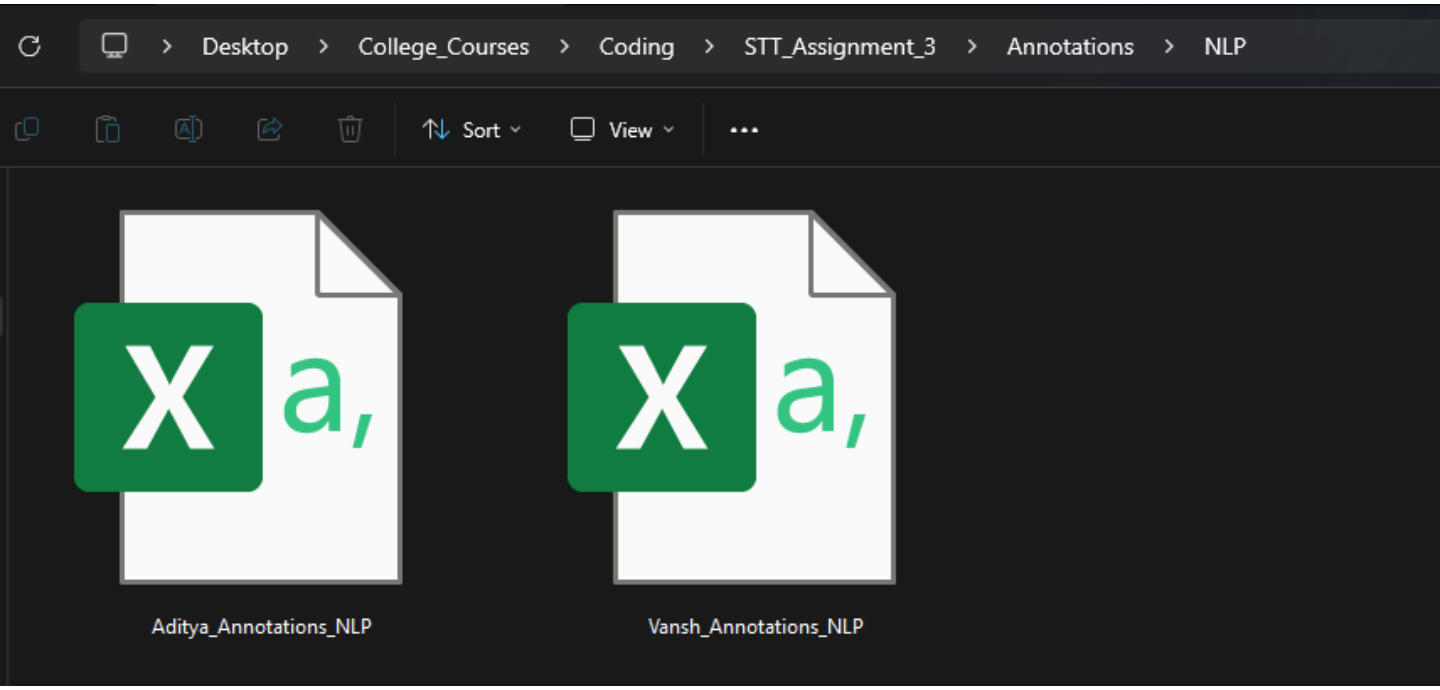



# All data points annotated



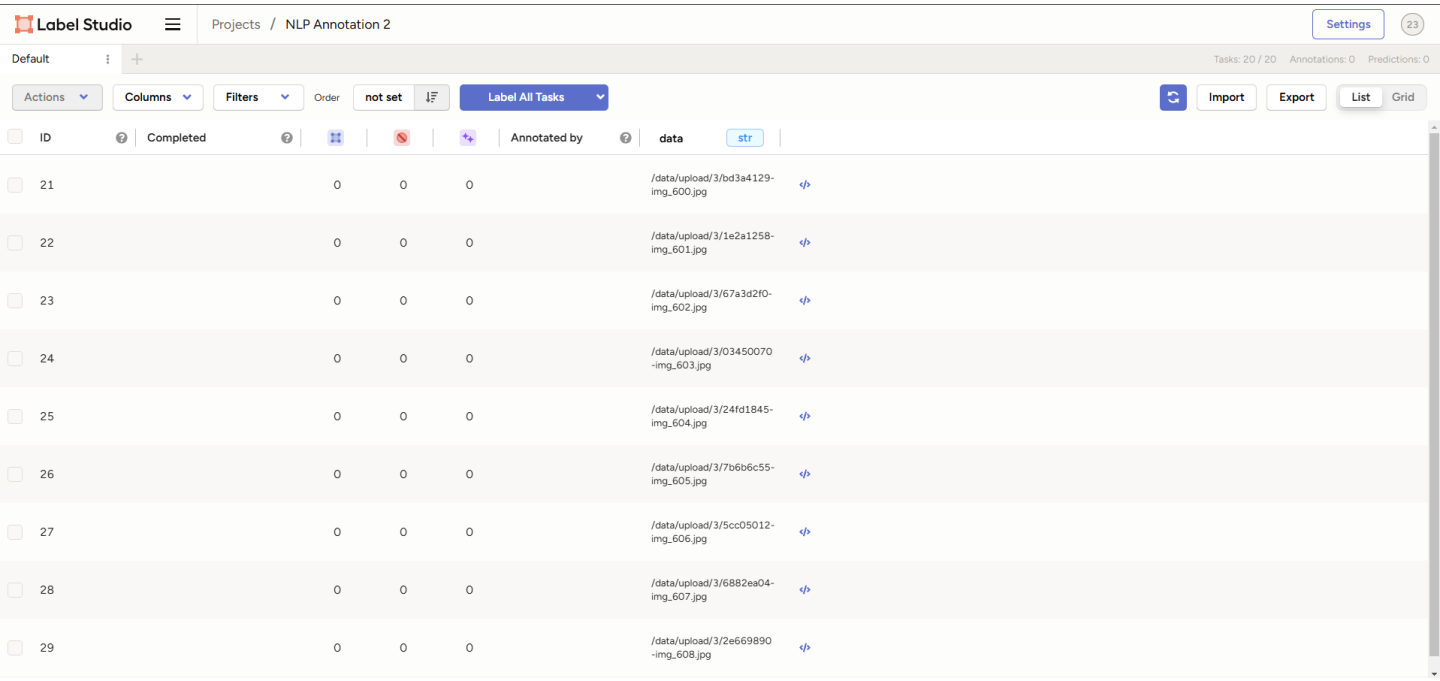

Exporting the annotations in the CSV File

## Exporting Annotations to CSV

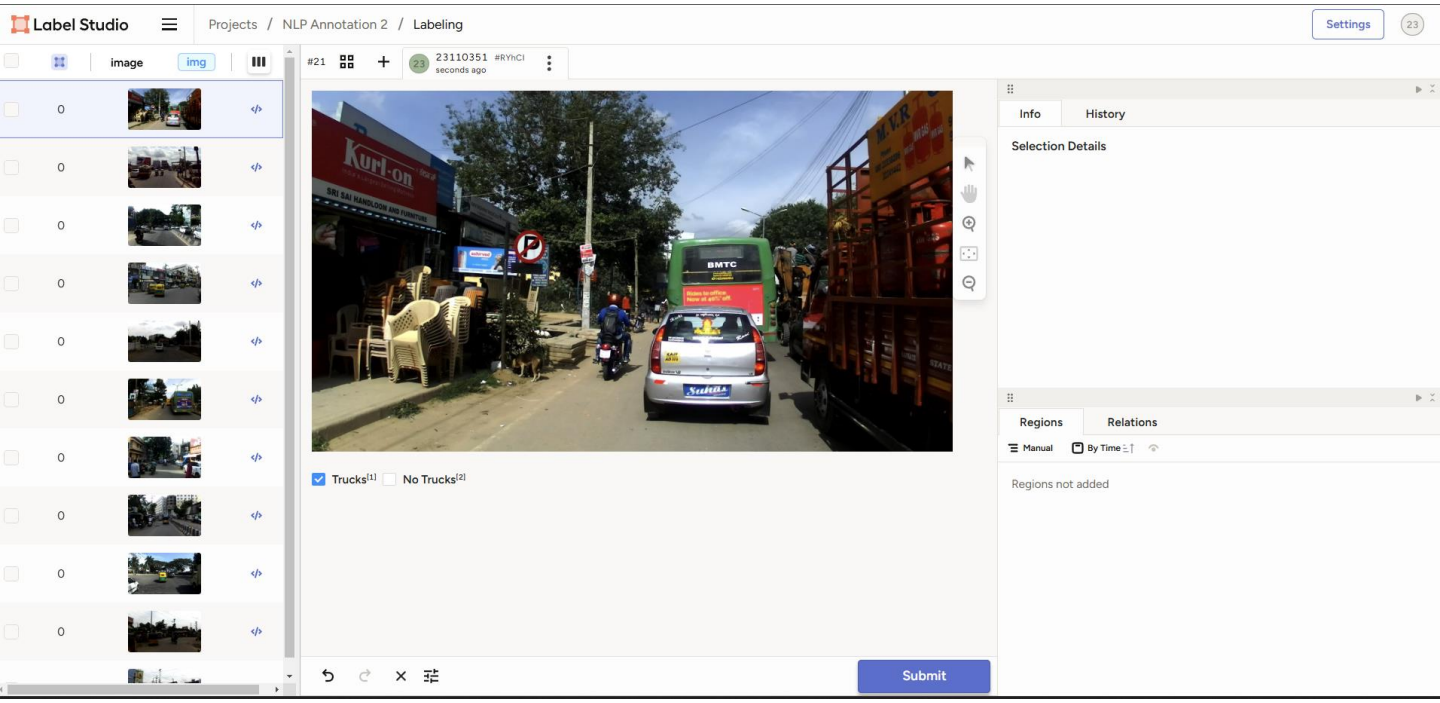



Now the annotations were done by both the teammates and they are saved in .Annotations/NLP Folder

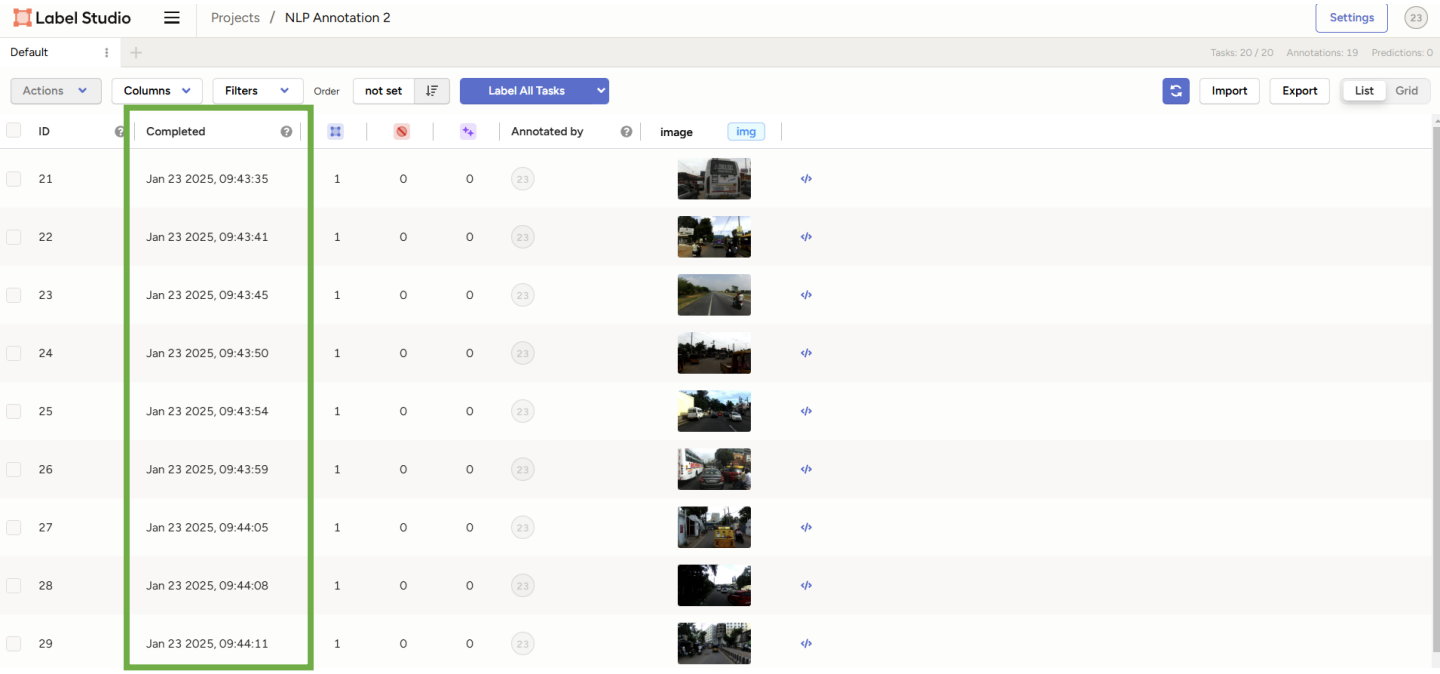
**The screenshot of annotations is not possible to show since each CSV line is too long. Please check the files.**




Now similarly importing the CV dataset of 20 images from img_600.jpg to img_619.jpg

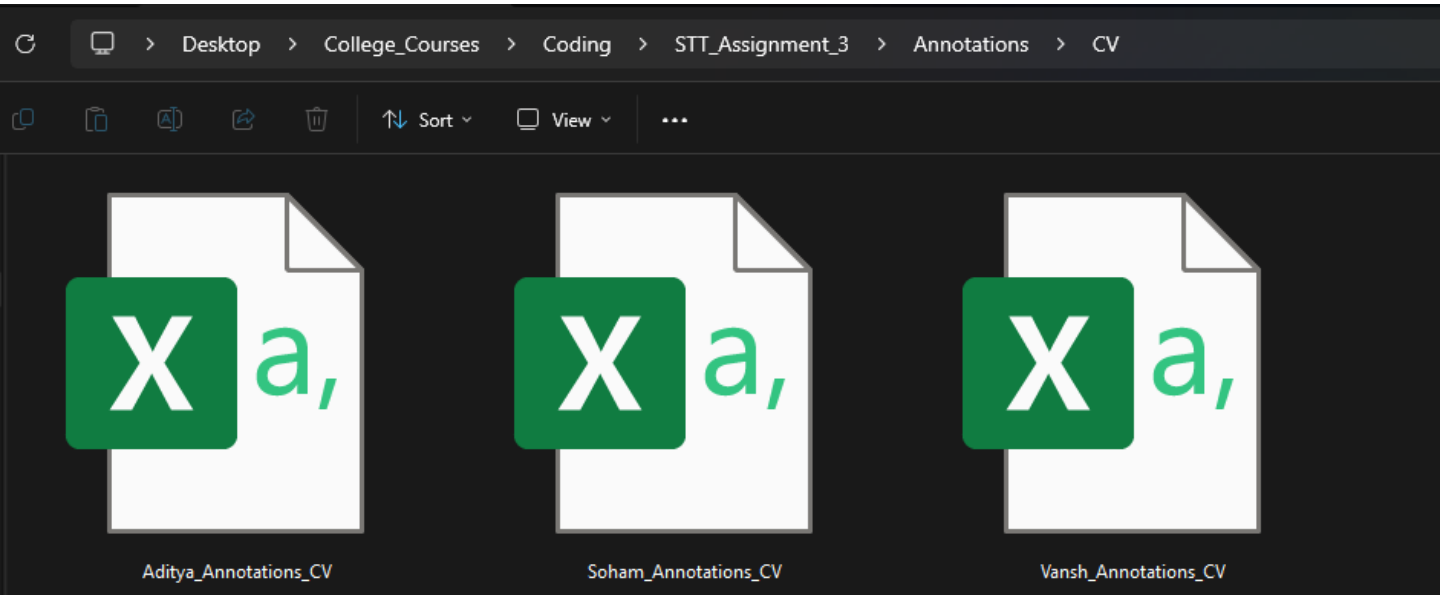



Now Annotating the CV dataset by classifying them as Trucks or No Trucks




CV Annotations done

## Exporting Annotations to CSV




Now the annotations were done by both the teammates and another student from another team and files are saved in .Annotations/CV Folder

**The screenshot of annotations is not possible to show since each CSV line is too long. Please check the files.**

**Task 3: Implementing Inter-Annotator Agreement**

**Please check** Task_3.ipynb **Jupyter file for Task 3**

# Thank You

## CS203 Lab Assignment 3

**Team 31**

**Vansh Kumar 23110351**

**Aditya Jain 23110016**