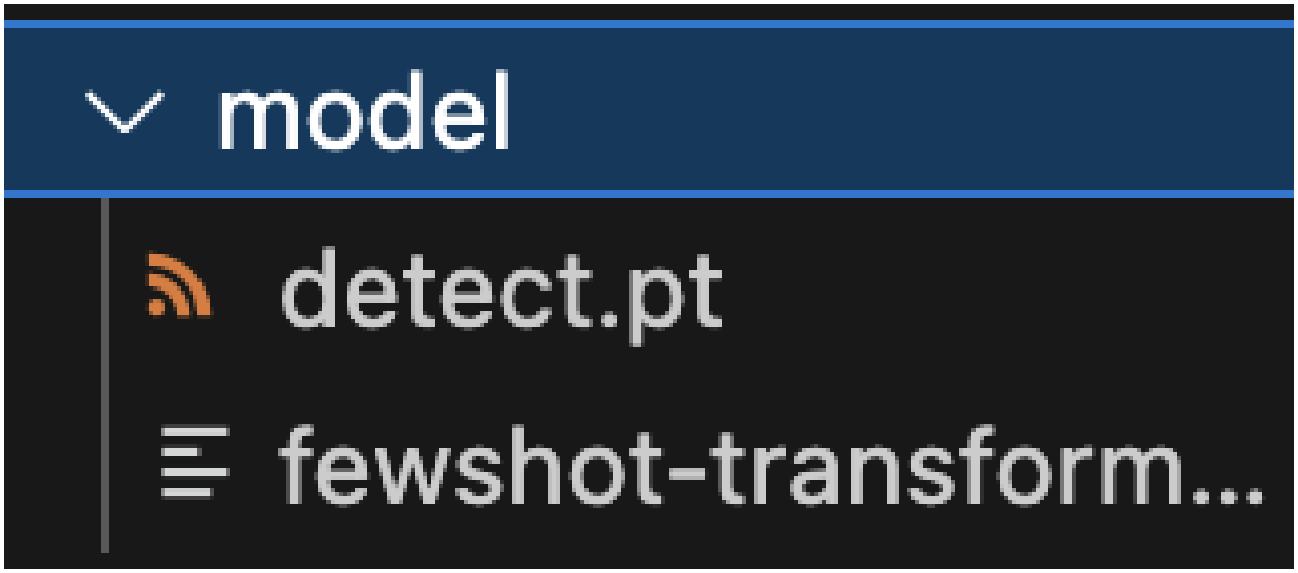
START

I am happy you are viewing my work!

1. To start it smooth, install all the dependencies required by installing from requirements.txt.

```
> pip install -r requirements.txt
```

2. Then, make sure all the two models are there in the model folder.



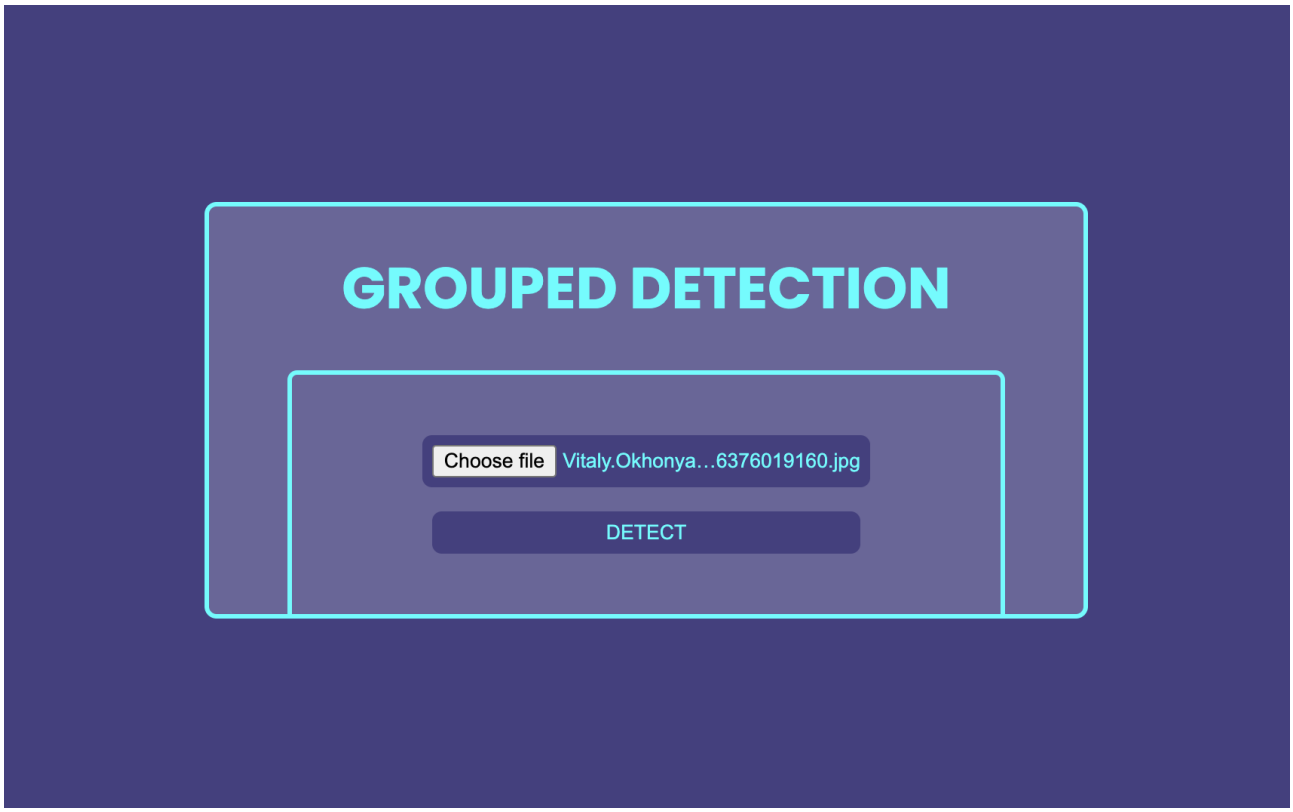
3. Then, simply run the app.py.

```
(env) python3 app.py
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 174-866-767
```

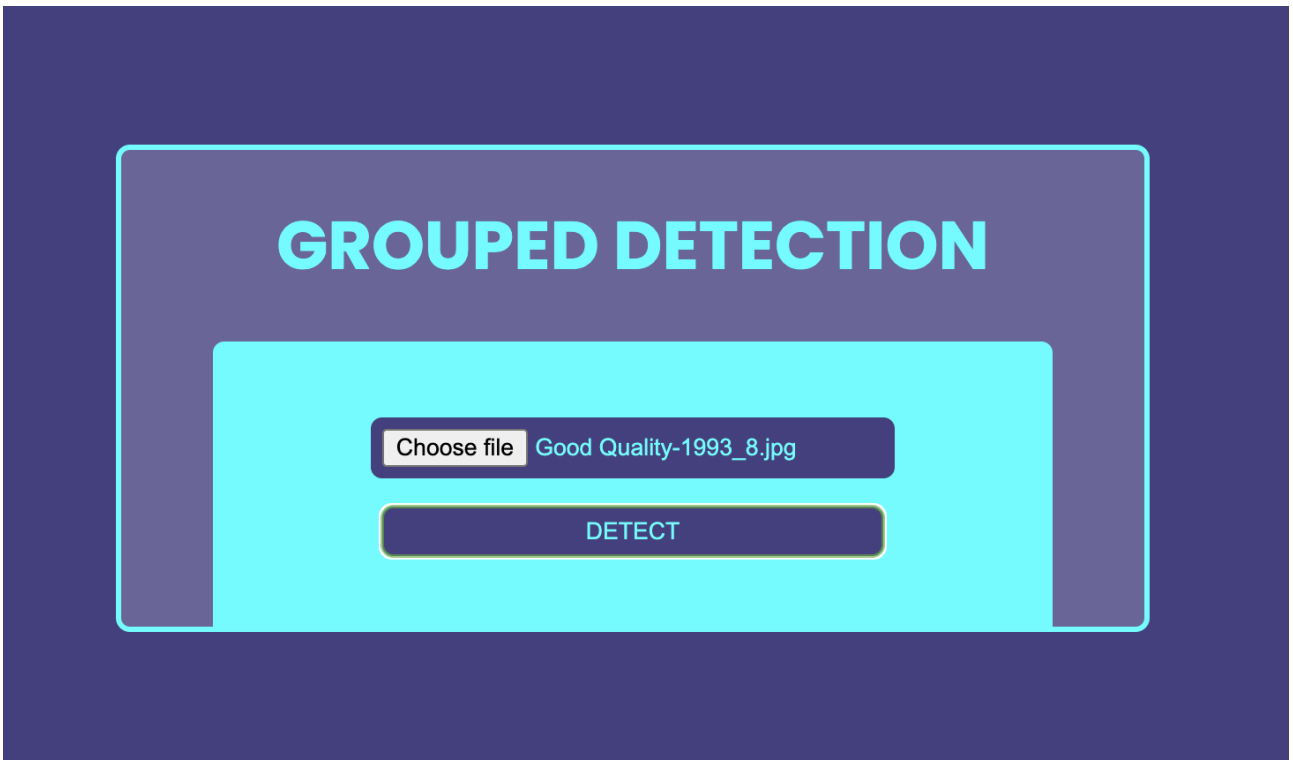
As usual, it will be served from http://127.0.0.1:5000. Access it.

INTERACT

In the home page, there will be an input for uploading image.

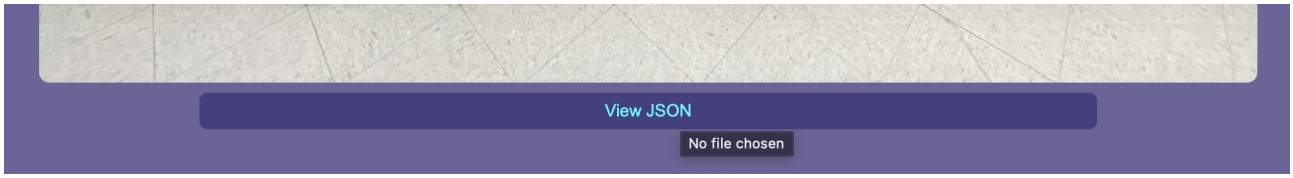


Click Choose File and upload an image and click DETECT.



Once it is done doing the stuffs, it will display the results.

Now, as mentioned, to view the JSON output, iI have provided a button down.



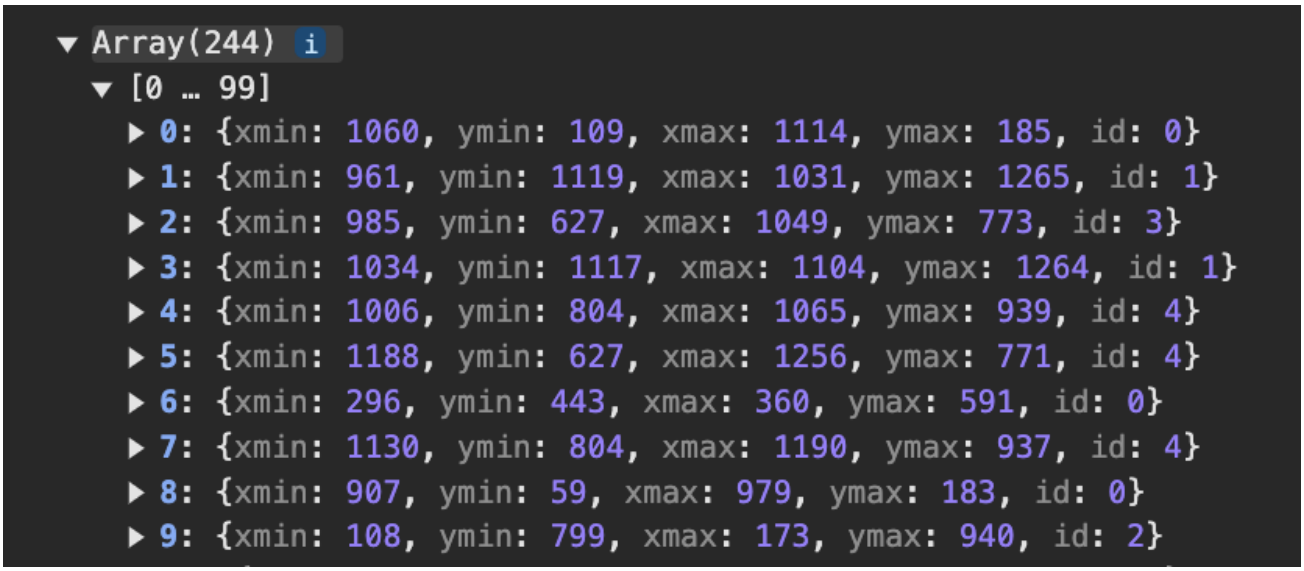
Click on it.

We have a table representation of co-ordinates and ID.

View JSON

XMIN	XMAX	YMIN	YMAX	ID
1060	109	1114	185	0
961	1119	1031	1265	1
985	627	1049	773	3
1034	1117	1104	1264	1
1006	804	1065	939	4
1188	627	1256	771	4
296	443	360	591	0
1130	804	1190	937	4
907	59	979	183	0
108	799	173	940	2
223	446	293	592	4
1141	961	1214	1091	1
454	629	513	779	2
984	67	1056	185	0
1106	1118	1171	1266	1
1044	459	1108	591	1
1068	804	1128	938	4
1218	960	1290	1091	1
1512	619	1556	756	3
483	980	541	1099	0

However, it is also available there in console.



HOW IT WORKS

1. YoloV5 is used for detection
2. SwinTransformer is used as Embedding Network. The last hidden state is used as Embedding.
3. Some samples of the cropped regions are used for training SwinTransformer backboned network. (Fewshot Training)
4. Based on the cluster, unique ID and color is assigned to the bouding boxes.


PANTENE
RAMBUT RONTOK
micellar
Dove
GRATIS
58,890
58,490
99,990
94,490
143,590
38,590

THANK YOU