

AI-based localization and classification of skin disease with Erythema

Sprint 4

Application Building

Building HTML Pages

STEP 1: Create index.html




STEP 2: Create register.html

Registration Form Using HTML/CSS

File | C:/Users/user/Downloads/HTML%20Pages/register.html

Skinnovation

Home Login Register



Name

Email

Password

Register

Already Have an Account? [Login Here](#)

29°C Cloudy

Search

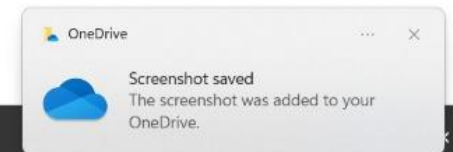
ENG US

12:33 pm 15/11/2022

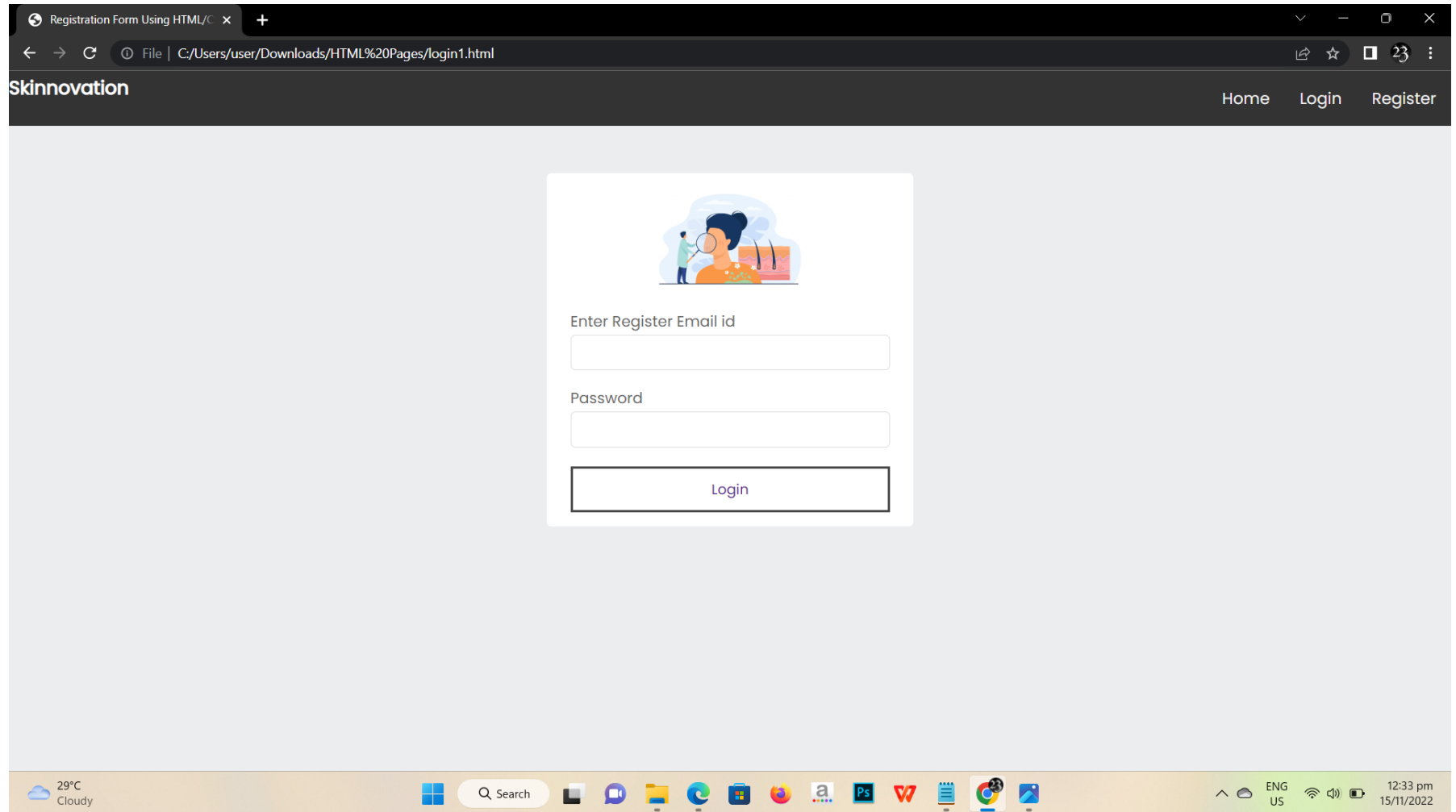
Successfully Registered

Login For More Information

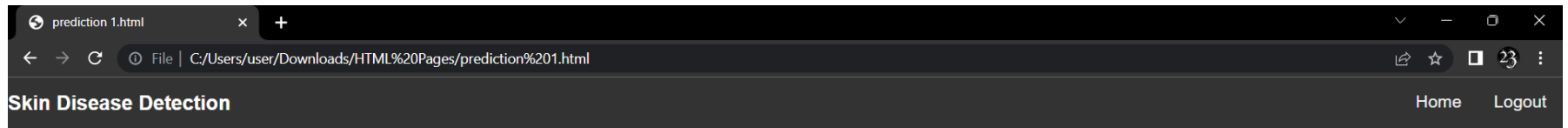
Login



STEP 3: Create login.html



STEP 4: Create prediction.html



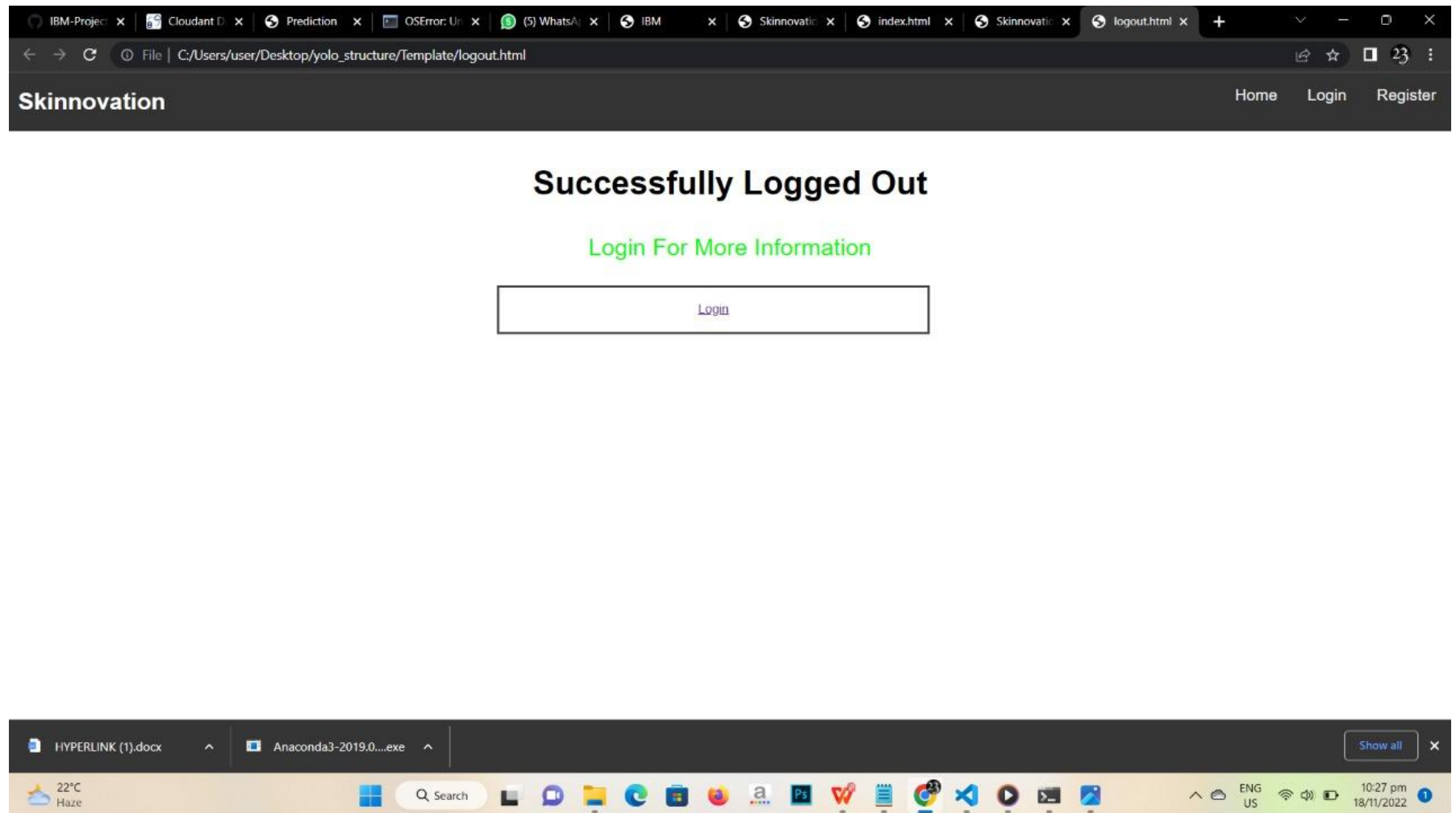
Skininnovation-AI-Based localization and clasification of skin disease with erythema

Now days people are suffering from skin diseases. More than 125 million people suffering from psoriasis also skin cancer rate is rapidly increasing over the last few decades especially Melanoma is most diversifying skin cancer. If skin diseases are not treated at an earlier stage, then it may lead to complications on the body including spreading of the infection from one individual to the other. The skin diseases can be prevented by investigating the infected region at an early stage. The characteristic of the skin images is diversified so that it is a challenging job to devise an efficient and robust algorithm for automatic detection of skin disease and its severity. Skin tone and skin colour play an important role in skin disease detection. Colour and coarseness of skin are visually different. Automatic processing of such images for skin analysis requires quantitative discriminator to differentiate the diseases.



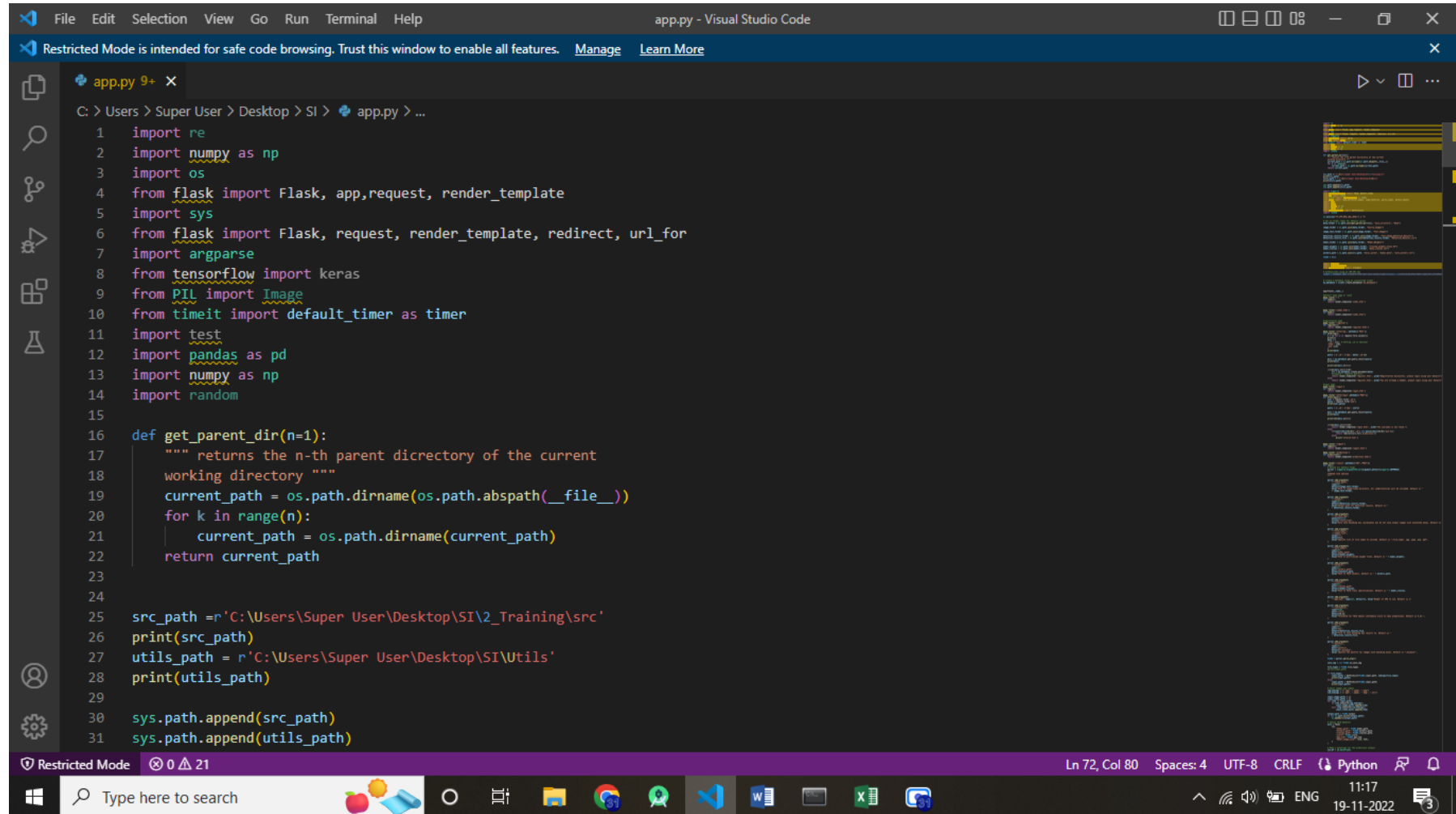
[Click Me! For a Demo](#)

STEP 5: Create logout.html



Build Python Code

Import the libraries



```
File Edit Selection View Go Run Terminal Help
app.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
app.py 9+ x
C: > Users > Super User > Desktop > SI > app.py > ...
1 import re
2 import numpy as np
3 import os
4 from flask import Flask, app, request, render_template
5 import sys
6 from flask import Flask, request, render_template, redirect, url_for
7 import argparse
8 from tensorflow import keras
9 from PIL import Image
10 from timeit import default_timer as timer
11 import test
12 import pandas as pd
13 import numpy as np
14 import random
15
16 def get_parent_dir(n=1):
17     """ returns the n-th parent directory of the current
18     working directory """
19     current_path = os.path.dirname(os.path.abspath(__file__))
20     for k in range(n):
21         current_path = os.path.dirname(current_path)
22     return current_path
23
24
25 src_path = r'C:\Users\Super User\Desktop\SI\2_Training\src'
26 print(src_path)
27 utils_path = r'C:\Users\Super User\Desktop\SI\Utils'
28 print(utils_path)
29
30 sys.path.append(src_path)
31 sys.path.append(utils_path)
```

Ln 72, Col 80 Spaces: 4 UTF-8 CRLF Python 11:17 19-11-2022

File Edit Selection View Go Run Terminal Help

app.py - Visual Studio Code

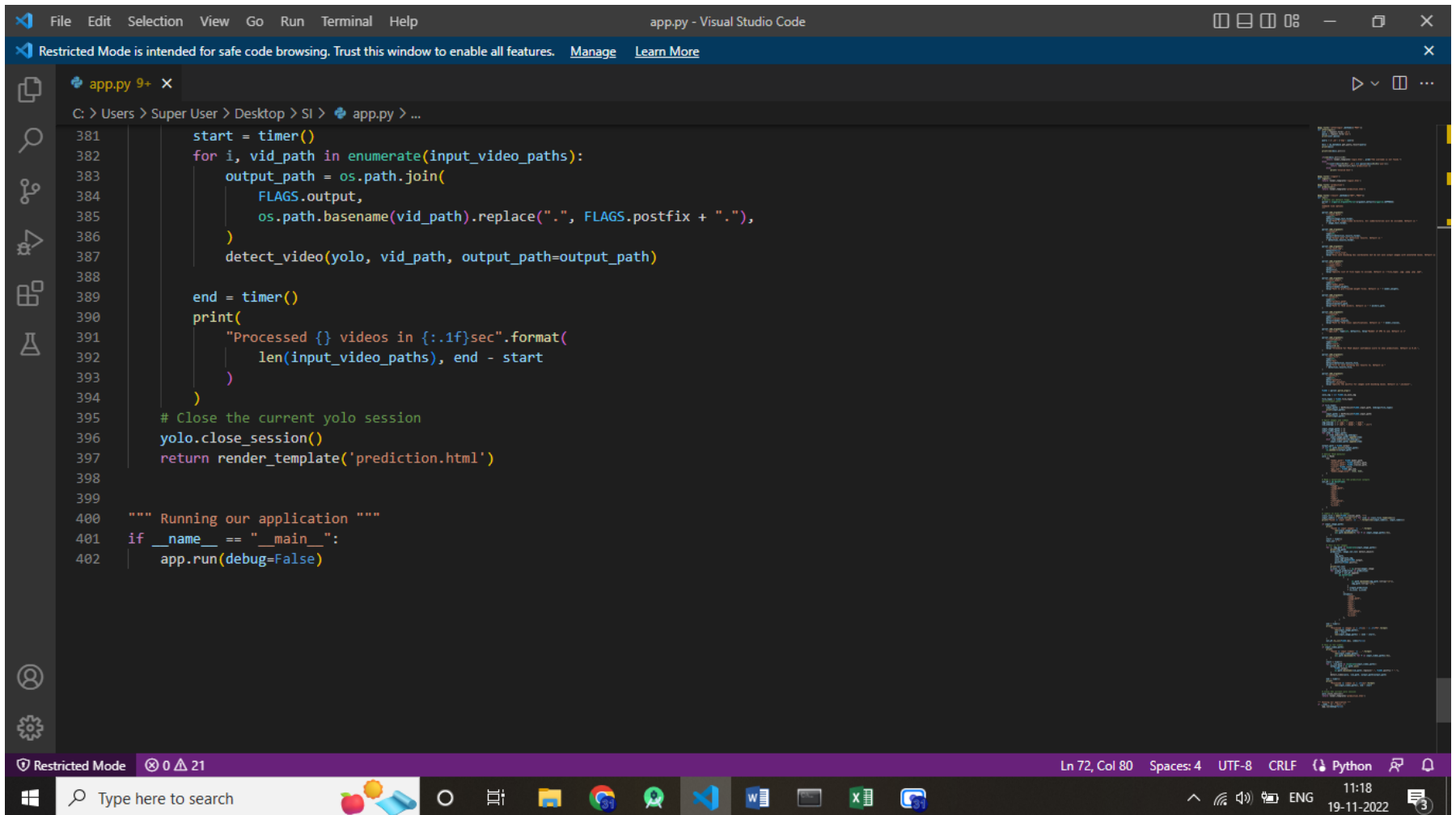
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

app.py 9+ X

C: > Users > Super User > Desktop > SI > app.py > ...

```
25 src_path = r'C:\Users\Super User\Desktop\SI\2_Training\src'
26 print(src_path)
27 utils_path = r'C:\Users\Super User\Desktop\SI\Utils'
28 print(utils_path)
29
30 sys.path.append(src_path)
31 sys.path.append(utils_path)
32
33 import argparse
34 from keras_yolo3.yolo import YOLO, detect_video
35 from PIL import Image
36 from timeit import default_timer as timer
37 from utils import load_extractor_model, load_features, parse_input, detect_object
38 import test
39 import utils
40 import pandas as pd
41 import numpy as np
42 from Get_File_Paths import GetFileList
43 import random
44
45 os.environ["TF_CPP_MIN_LOG_LEVEL"] = "3"
46
47 # Set up folder names for default values
48 data_folder = os.path.join(get_parent_dir(n=1), "yolo_structure", "Data")
49
50 image_folder = os.path.join(data_folder, "Source_Images")
51
52 image_test_folder = os.path.join(image_folder, "Test_Images")
53
54 detection_results_folder = os.path.join(image_folder, "Test_Image_Detection_Results")
55 detection_results_file = os.path.join(detection_results_folder, "Detection_Results.csv")
```

Ln 72, Col 80 Spaces: 4 UTF-8 CRLF Python 11:17 19-11-2022



Run The Application

STEP 1: Open anaconda prompt from the start menu

```
Anaconda Prompt (Anaconda3) - python app.py

(base) C:\Users\Super User>cd Desktop

(base) C:\Users\Super User\Desktop>cd SI

(base) C:\Users\Super User\Desktop\SI>pip install -r requirements.txt
Requirement already satisfied: setuptools==41.0.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 1)) (41.0.1)
Requirement already satisfied: pip==19.0.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 2)) (19.1.1)
Requirement already satisfied: absl-py==0.7.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 3)) (0.7.1)
Requirement already satisfied: astor==0.8.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 4)) (0.8.0)
Requirement already satisfied: attrs==19.1.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 5)) (19.1.0)
Requirement already satisfied: backcall==0.1.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 6)) (0.1.0)
Requirement already satisfied: bleach==3.1.4 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 7)) (3.1.4)
Requirement already satisfied: certifi==2019.6.16 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 8)) (2019.6.16)
Requirement already satisfied: chardet==3.0.4 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 9)) (3.0.4)
Requirement already satisfied: cyclo==0.10.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 10)) (0.10.0)
Requirement already satisfied: decorator==4.4.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 11)) (4.4.0)
Requirement already satisfied: defusedxml==0.6.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 12)) (0.6.0)
Requirement already satisfied: progressbar2==3.46.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 13)) (3.46.1)
Requirement already satisfied: entrypoints==0.3 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 14)) (0.3)
Requirement already satisfied: gast==0.2.2 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 15)) (0.2.2)
Requirement already satisfied: google-pasta==0.1.7 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 16)) (0.1.7)
Requirement already satisfied: grpcio==1.22.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 17)) (1.22.0)
Requirement already satisfied: h5py==2.9.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 18)) (2.9.0)
Requirement already satisfied: idna==2.8 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 19)) (2.8)
Requirement already satisfied: ipykernel==5.3.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 20)) (6.16.2)
Requirement already satisfied: ipython==7.6.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 21)) (7.6.1)
Requirement already satisfied: ipython-genutils==0.2.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 22)) (0.2.0)
Requirement already satisfied: ipywidgets==7.5.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 23)) (7.5.0)
Requirement already satisfied: jedi==0.17.2 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 24)) (0.18.1)
Requirement already satisfied: Jinja2==2.10.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 25)) (2.10.1)
Requirement already satisfied: joblib==0.13.2 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 26)) (0.13.2)
Requirement already satisfied: jsonschema==3.2.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 27)) (4.17.0)
Requirement already satisfied: jupyter==1.0.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 28)) (1.0.0)
Requirement already satisfied: jupyter-client==5.3.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 29)) (5.3.1)
Requirement already satisfied: jupyter-console==6.0.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 30)) (6.0.0)
Requirement already satisfied: jupyter-core==4.5.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 31)) (4.5.0)
Requirement already satisfied: Keras==2.2.4 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 32)) (2.2.4)
Requirement already satisfied: Keras-Applications==1.0.8 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 33)) (1.0.8)
Requirement already satisfied: Keras-Preprocessing==1.1.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 34)) (1.1.0)
Requirement already satisfied: kiwisolver==1.1.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 35)) (1.1.0)
Requirement already satisfied: Markdown==3.1.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 36)) (3.1.1)
Requirement already satisfied: MarkupSafe==1.1.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 37)) (1.1.1)
Requirement already satisfied: matplotlib==3.0.3 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 38)) (3.0.3)
```

STEP 2: Navigate to the folder where your python script:

```
Anaconda Prompt (Anaconda3) - python app.py
Requirement already satisfied: tornado==6.0.3 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 79)) (6.0.3)
Requirement already satisfied: traitlets>=5.0.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 80)) (5.5.0)
Requirement already satisfied: urllib3==1.25.3 in c:\users\super user\appdata\roaming\python\python37\site-packages (from -r requirements.txt (line 81)) (1.25.3)
Requirement already satisfied: wcwidth==0.1.7 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 82)) (0.1.7)
Requirement already satisfied: webencodings==0.5.1 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 83)) (0.5.1)
Requirement already satisfied: Werkzeug==0.15.4 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 84)) (0.15.4)
Requirement already satisfied: widgetsnbextension==3.5.0 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 85)) (3.5.0)
Requirement already satisfied: wrapt==1.11.2 in f:\anaconda3\lib\site-packages (from -r requirements.txt (line 86)) (1.11.2)
Requirement already satisfied: python-utils>=2.3.0 in f:\anaconda3\lib\site-packages (from progressbar2==3.46.1->-r requirements.txt (line 13)) (3.4.5)
Requirement already satisfied: psutil in f:\anaconda3\lib\site-packages (from ipykernel==5.3.0->-r requirements.txt (line 20)) (5.6.3)
Requirement already satisfied: debugpy>=1.0 in f:\anaconda3\lib\site-packages (from ipykernel==5.3.0->-r requirements.txt (line 20)) (1.6.3)
Requirement already satisfied: nest-asyncio in f:\anaconda3\lib\site-packages (from ipykernel==5.3.0->-r requirements.txt (line 20)) (1.5.6)
Requirement already satisfied: packaging in f:\anaconda3\lib\site-packages (from ipykernel==5.3.0->-r requirements.txt (line 20)) (19.0)
Requirement already satisfied: matplotlib-inline>=0.1 in f:\anaconda3\lib\site-packages (from ipykernel==5.3.0->-r requirements.txt (line 20)) (0.1.6)
Requirement already satisfied: colorama; sys_platform == "win32" in f:\anaconda3\lib\site-packages (from ipython==7.6.1->-r requirements.txt (line 21)) (0.4.1)
Requirement already satisfied: typing-extensions; python_version < "3.8" in f:\anaconda3\lib\site-packages (from jsonschema>=3.2.0->-r requirements.txt (line 27)) (4.4.0)
Requirement already satisfied: importlib-resources>=1.4.0; python_version < "3.9" in f:\anaconda3\lib\site-packages (from jsonschema>=3.2.0->-r requirements.txt (line 27)) (5.10.0)
Requirement already satisfied: pkgutil-resolve-name>=1.3.10; python_version < "3.9" in f:\anaconda3\lib\site-packages (from jsonschema>=3.2.0->-r requirements.txt (line 27)) (1.3.10)
Requirement already satisfied: importlib-metadata; python_version < "3.8" in f:\anaconda3\lib\site-packages (from jsonschema>=3.2.0->-r requirements.txt (line 27)) (5.0.0)
Requirement already satisfied: fastjsonschema in f:\anaconda3\lib\site-packages (from nbformat==5.0->-r requirements.txt (line 42)) (2.16.2)
Requirement already satisfied: PyQt5_sip<13,>=4.19.14 in f:\anaconda3\lib\site-packages (from pyqt5<5.13->-r requirements.txt (line 58)) (12.11.0)
Requirement already satisfied: qtpy>=2.0.1 in c:\users\super user\appdata\roaming\python\python37\site-packages (from qtconsole>=5.1.0->-r requirements.txt (line 65)) (2.3.0)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\super user\appdata\roaming\python\python37\site-packages (from requests>=2.23.0->-r requirements.txt (line 66)) (2.1.1)
Requirement already satisfied: wheel>=0.26; python_version >= "3" in f:\anaconda3\lib\site-packages (from tensorboard==1.15.0->-r requirements.txt (line 73)) (0.33.4)
Requirement already satisfied: opt-einsum>=2.3.2 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2->-r requirements.txt (line 74)) (3.3.0)
Requirement already satisfied: zipp>=3.1.0; python_version < "3.10" in f:\anaconda3\lib\site-packages (from importlib-resources>=1.4.0; python_version < "3.9"->jsonschema>=3.2.0->-r requirements.txt (line 27)) (3.10.0)

(base) C:\Users\Super User\Desktop\SI>pip install cloudant
Requirement already satisfied: cloudant in f:\anaconda3\lib\site-packages (2.15.0)
Requirement already satisfied: requests<3.0.0,>=2.7.0 in c:\users\super user\appdata\roaming\python\python37\site-packages (from cloudant) (2.28.1)
Requirement already satisfied: certifi>=2017.4.17 in f:\anaconda3\lib\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (2019.6.16)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\super user\appdata\roaming\python\python37\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (2.1.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\super user\appdata\roaming\python\python37\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (1.25.3)
Requirement already satisfied: idna<4,>=2.5 in f:\anaconda3\lib\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (2.8)
```

STEP 3: Now type “python app.py” command

```
Anaconda Prompt (Anaconda3) - python app.py
1.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\super user\appdata\roaming\python\python37\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (1.25.3)
Requirement already satisfied: idna<4,>=2.5 in f:\anaconda3\lib\site-packages (from requests<3.0.0,>=2.7.0->cloudant) (2.8)

(base) C:\Users\Super User\Desktop\SI>python app.py
C:\Users\Super User\Desktop\SI\2_Training\src
C:\Users\Super User\Desktop\SI\Utils
Using TensorFlow backend.
* Serving Flask app "app" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
WARNING: Logging before flag parsing goes to stderr.
I1119 11:10:54.254477 6436 _internal.py:122] * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
I1119 11:11:05.631317 9608 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:11:05] "[37mGET / HTTP/1.1+[0m" 200 -
I1119 11:11:24.170137 1036 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:11:24] "[37mGET /register HTTP/1.1+[0m" 200 -
I1119 11:11:24.286068 10608 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:11:24] "[33mGET /static/css/style.css HTTP/1.1+[0m" 404 -
['Priya S', 'priya2406@gmail.com', 'priyavp']
{'id': 'priya2406@gmail.com', 'name': 'Priya S', 'psw': 'priyavp'}
<cloudant.result.QueryResult object at 0x0000026837D36320>
0
I1119 11:11:56.921161 4316 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:11:56] "[37mPOST /afterreg HTTP/1.1+[0m" 200 -
I1119 11:11:57.007112 7048 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:11:57] "[33mGET /static/css/style.css HTTP/1.1+[0m" 404 -
I1119 11:12:18.593814 6856 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:12:18] "[37mGET /login HTTP/1.1+[0m" 200 -
priya2406@gmail.com priyavp
<cloudant.result.QueryResult object at 0x0000026837D36B00>
1
I1119 11:12:35.269101 4840 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:12:35] "[32mPOST /afterlogin HTTP/1.1+[0m" 302 -
I1119 11:12:35.286111 10708 _internal.py:122] 127.0.0.1 - - [19/Nov/2022 11:12:35] "[37mGET /prediction HTTP/1.1+[0m" 200 -
['C:\\Users\\Super User\\Desktop\\yolo_structure\\Data\\Source_Images\\Test_Images\\infectiosum(1).jpeg']
W1119 11:12:54.684875 6056 module_wrapper.py:139] From F:\Anaconda3\lib\site-packages\keras\backend\tensorflow_backend.py:174: The name tf.get_default_session is deprecated. Please use tf.compat.v1.get_default_session instead.

W1119 11:12:54.685870 6056 module_wrapper.py:139] From F:\Anaconda3\lib\site-packages\keras\backend\tensorflow_backend.py:181: The name tf.ConfigProto is deprecated. Please use tf.compat.v1.ConfigProto instead.

W1119 11:12:54.692879 6056 module_wrapper.py:139] From F:\Anaconda3\lib\site-packages\keras\backend\tensorflow_backend.py:186: The name tf.Session is deprecated. Please use tf.compat.v1.Session instead.

W1119 11:12:54.700176 6056 module_wrapper.py:139] From F:\Anaconda3\lib\site-packages\keras\backend\tensorflow_backend.py:190: The name tf.global_variables is deprecated. Please use tf.compat.v1.global_variables instead.
```