AI-based localization and classification of skin disease with Erythema

Sprint 4

Application Building

Building HTML Pages

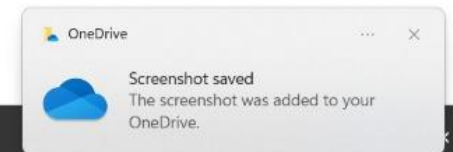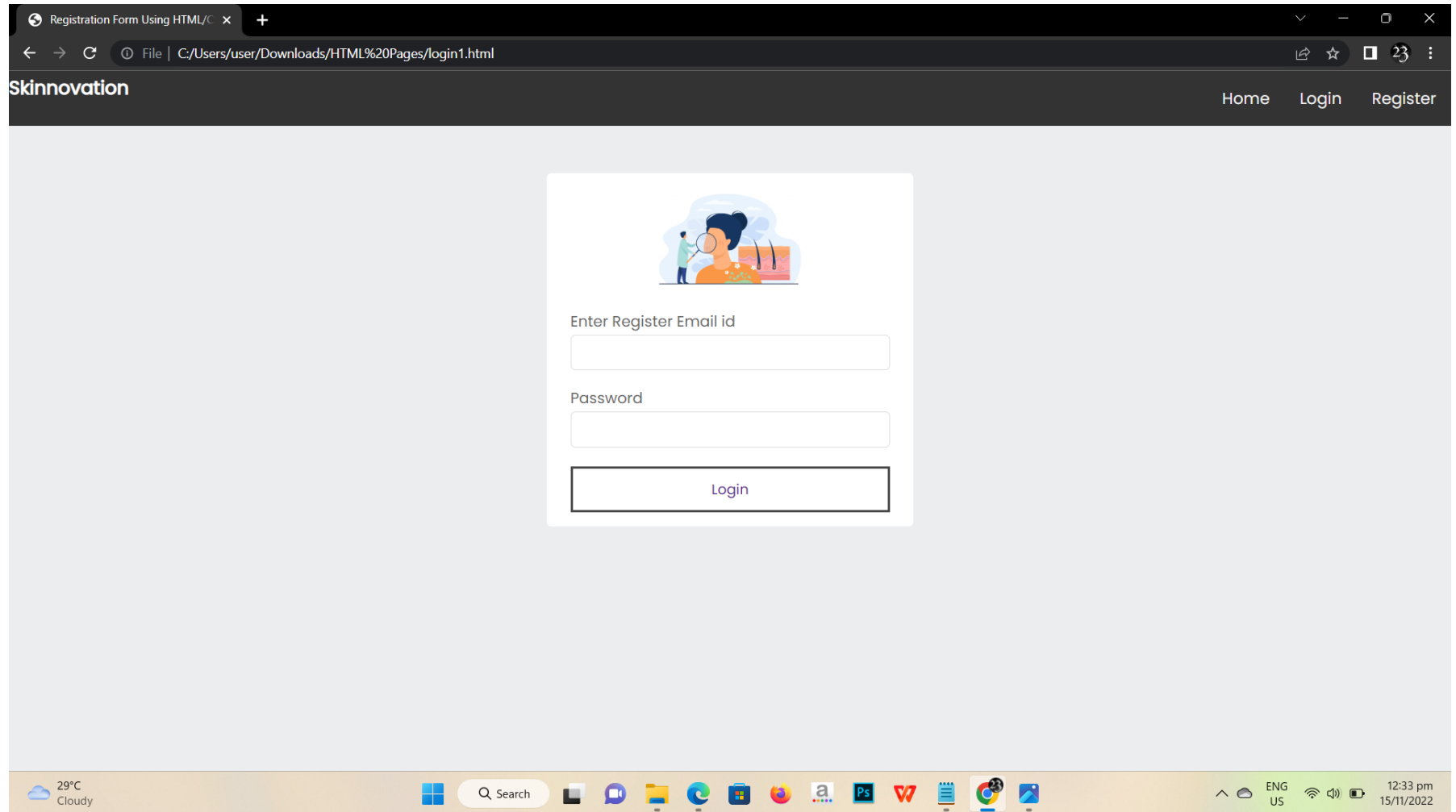## STEP 1: Create index.html

STEP 2: Create register.html

Successfully Registered

Login For More Information

Login

STEP 3: Create login.html

STEP 4: Create prediction.html
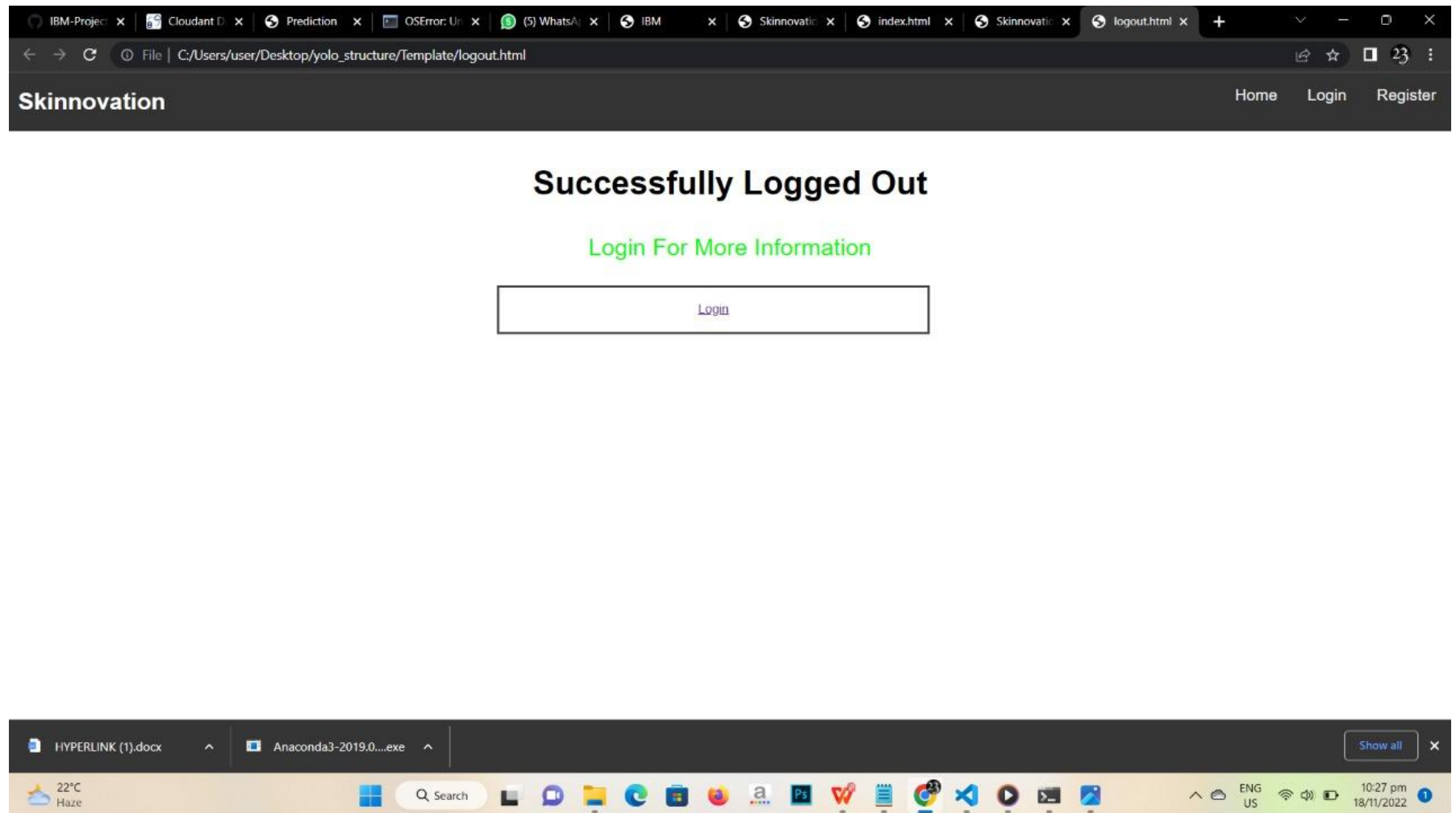

Skin Disease Detection   Home   Logout
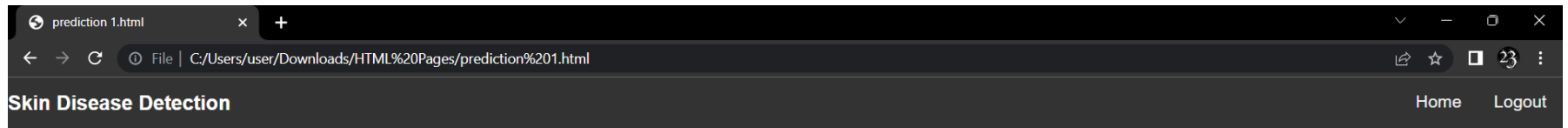
Skinnovation-AI-Based localization and clasification of skin disease with erythema

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.
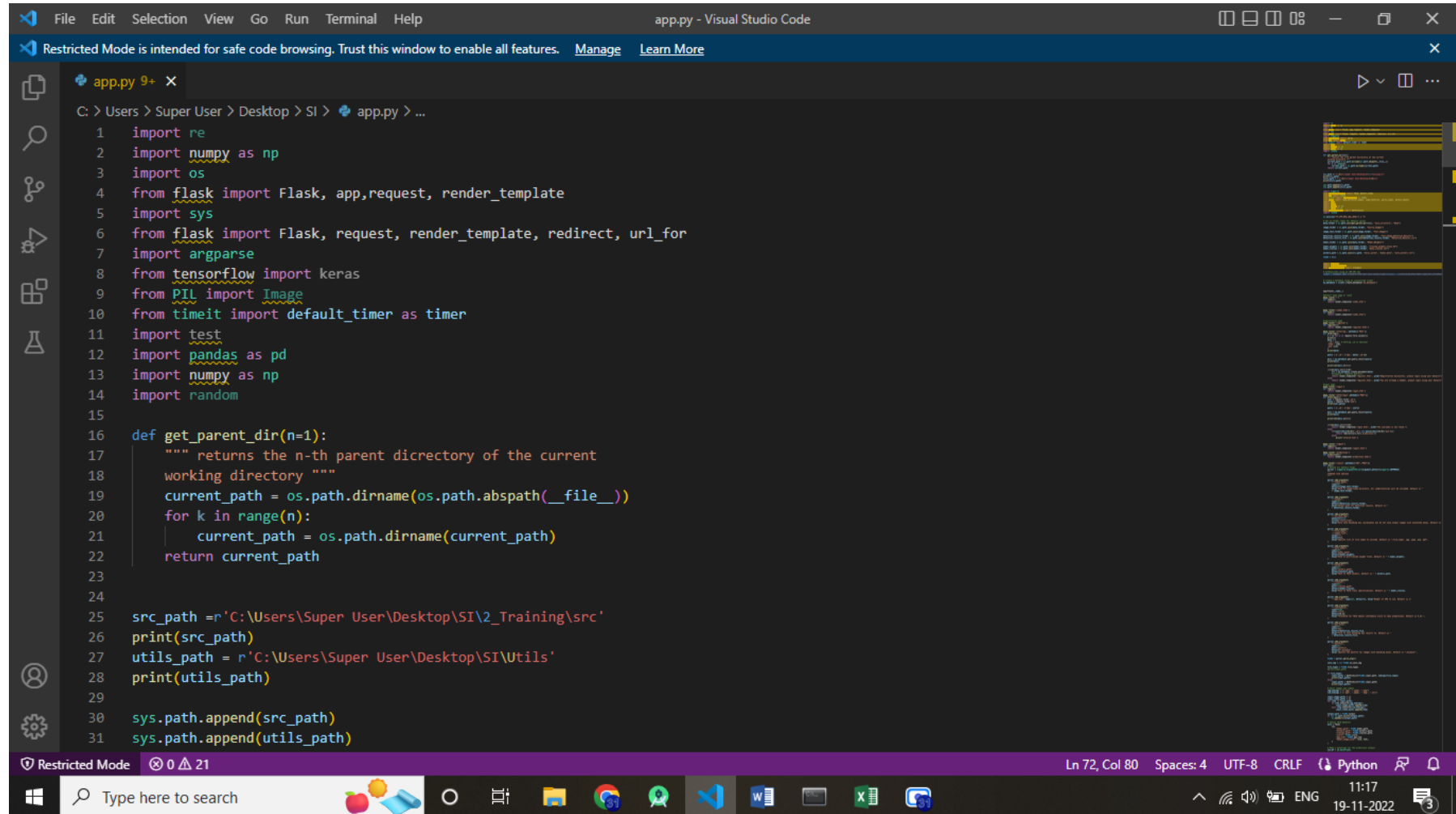
Click Me! For a Demo

STEP 5: Create logout.html

Build Python Code

Import the libraries

```python
    src_path =r'C:\Users\Super User\Desktop\SI\2_Training\src'
    print(src_path)
    utils_path = r'C:\Users\Super User\Desktop\SI\Utils'
    print(utils_path)


    sys.path.append(src_path)
    sys.path.append(utils_path)


    import argparse
    from keras_yolo3.yolo import YOLO, detect_video
    from PIL import Image
    from timeit import default_timer as timer
    from utils import load_extractor_model, load_features, parse_input, detect_object
    import test
    import utils
    import pandas as pd
    import numpy as np
    from Get_File_Paths import GetFileList
    import random


    os.environ["TF_CPP_MIN_LOG_LEVEL"] = "3"


    # Set up folder names for default values
    data_folder = os.path.join(get_parent_dir(n=1), "yolo_structure", "Data")

    image_folder = os.path.join(data_folder, "Source_Images")

    image_test_folder = os.path.join(image_folder, "Test_Images")

    detection_results_folder = os.path.join(image_folder, "Test_Image_Detection_Results")
    detection_results_file = os.path.join(detection_results_folder, "Detection_Results.csv")
```

```python
        start = timer()
        for i, vid_path in enumerate(input_video_paths):
            output_path = os.path.join(
                FLAGS.output,
                os.path.basename(vid_path).replace(".", FLAGS.postfix + "."),
            )
            detect_video(yolo, vid_path, output_path=output_path)

        end = timer()
        print(
            "Processed {} videos in {:.1f}sec".format(
                len(input_video_paths), end - start
            )
        )
    # Close the current yolo session
    yolo.close_session()
    return render_template('prediction.html')


""" Running our application """
if __name__ == "__main__":
    app.run(debug=False)
```
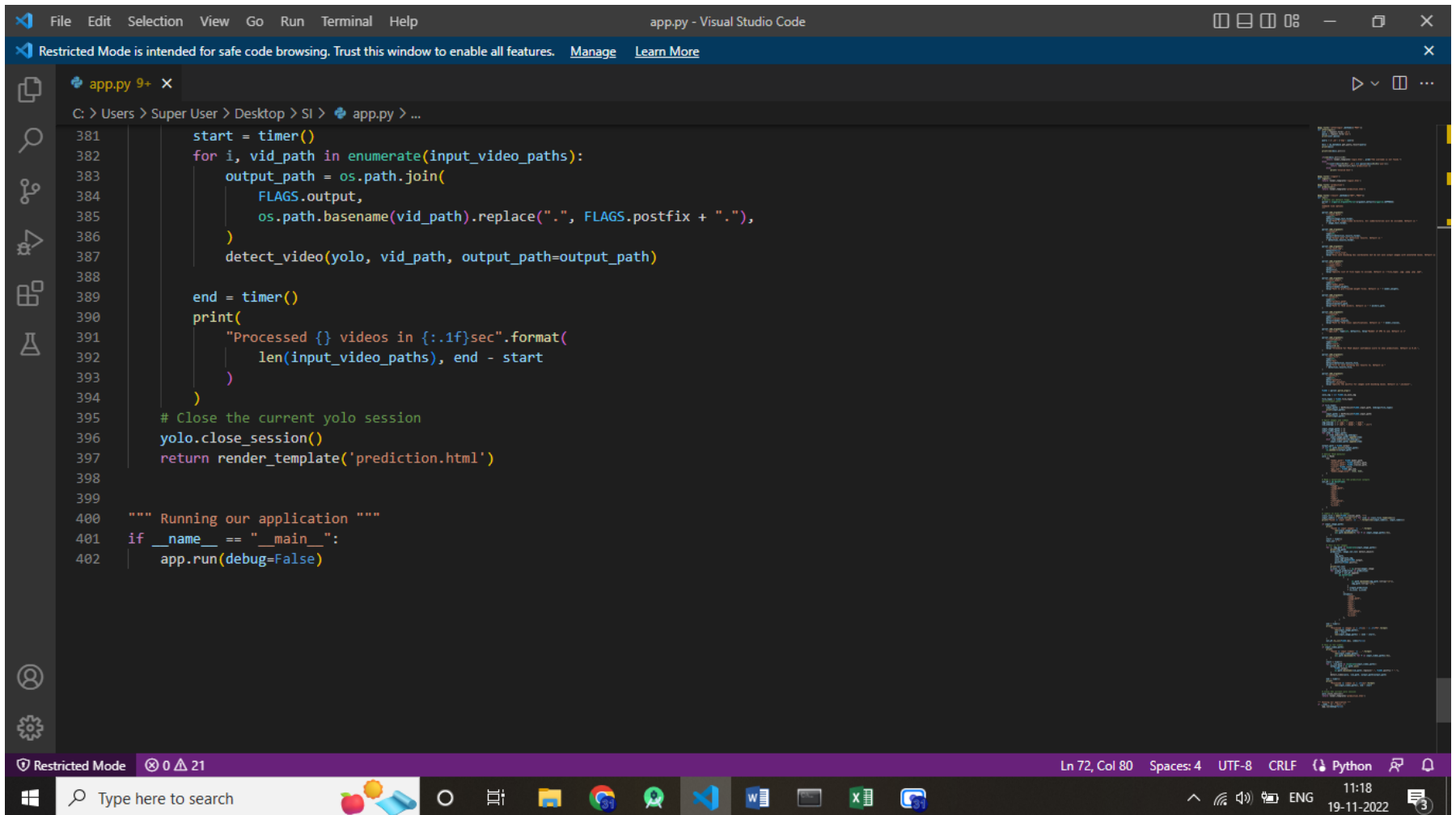
Run The Application

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)
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