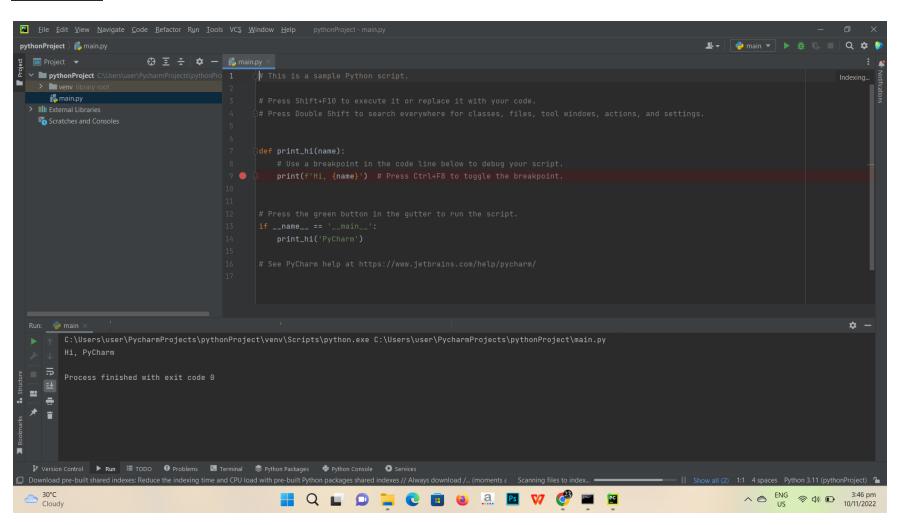
# AI-based localization and classification of skin disease with Erythema

**Sprint 1** 

**Pre-Requisites and Dataset Creation** 

#### **Pre-Requisites**

# STEP 1: Install Python IDE (Spyder/ PyCharm IDE Is Ideal To Complete This Project)



#### **STEP 2: Install Python Packages**

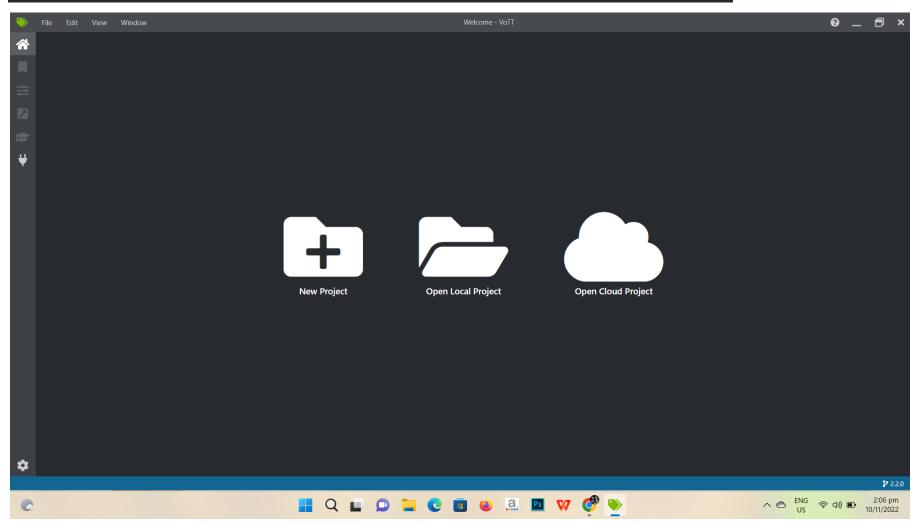
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Anaconda Prompt (Anaconda3)
(base) C:\Users\Super User>pip install tensorflow==1.15.2
Requirement already satisfied: tensorflow==1.15.2 in f:\anaconda3\lib\site-packages (1.15.2)
Requirement already satisfied: protobuf>=3.6.1 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (4.21.9)
Requirement already satisfied: wheel>=0.26; python_version >= "3" in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (0.33.4)
Requirement already satisfied: gast==0.2.2 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (0.2.2)
Requirement already satisfied: keras-preprocessing>=1.0.5 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.1.2)
Requirement already satisfied: tensorboard<1.16.0,>=1.15.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.15.0)
Requirement already satisfied: opt-einsum>=2.3.2 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (3.3.0)
Requirement already satisfied: wrapt>=1.11.1 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.11.2)
Requirement already satisfied: six>=1.10.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.12.0)
Requirement already satisfied: tensorflow-estimator==1.15.1 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.15.1)
Requirement already satisfied: numpy<2.0,>=1.16.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.16.4)
Requirement already satisfied: astor>=0.6.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (0.8.1)
Requirement already satisfied: keras-applications>=1.0.8 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.0.8)
Requirement already satisfied: grpcio>=1.8.6 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.50.0)
Requirement already satisfied: google-pasta>=0.1.6 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (0.2.0)
Requirement already satisfied: termcolor>=1.1.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (2.1.0)
Requirement already satisfied: absl-py>=0.7.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.3.0)
Requirement already satisfied: setuptools>=41.0.0 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (41.0.1)
Requirement already satisfied: werkzeug>=0.11.15 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (0.15.4)
Requirement already satisfied: markdown>=2.6.8 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (3.4.1)
Requirement already satisfied: h5py in f:\anaconda3\lib\site-packages (from keras-applications>=1.0.8->tensorflow==1.15.2) (2.9.0)
Requirement already satisfied: importlib-metadata>=4.4; python version < "3.10" in f:\anaconda3\lib\site-packages (from markdown>=2.6.8->tensorboard<1.16.0,>=1.15.0->te
nsorflow==1.15.2) (5.0.0)
Requirement already satisfied: typing-extensions>=3.6.4; python version < "3.8" in f:\anaconda3\lib\site-packages (from importlib-metadata>=4.4; python version < "3.10"
->markdown>=2.6.8->tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (4.4.0)
Requirement already satisfied: zipp>=0.5 in f:\anaconda3\lib\site-packages (from importlib-metadata>=4.4; python version < "3.10"->markdown>=2.6.8->tensorboard<1.16.0,>
=1.15.0->tensorflow==1.15.2) (0.5.1)
(base) C:\Users\Super User>pip install keras==2.2.4
Requirement already satisfied: keras==2.2.4 in f:\anaconda3\lib\site-packages (2.2.4)
Requirement already satisfied: keras-preprocessing>=1.0.5 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.1.2)
Requirement already satisfied: pyyaml in f:\anaconda3\lib\site-packages (from keras==2.2.4) (5.1.1)
Requirement already satisfied: scipy>=0.14 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.2.1)
Requirement already satisfied: h5py in f:\anaconda3\lib\site-packages (from keras==2.2.4) (2.9.0)
Requirement already satisfied: six>=1.9.0 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.12.0)
Requirement already satisfied: numpy>=1.9.1 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.16.4)
Requirement already satisfied: keras-applications>=1.0.6 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.0.8)
(base) C:\Users\Super User>pip install opencv-python==4.1.0.25
Requirement already satisfied: opencv-python==4.1.0.25 in f:\anaconda3\lib\site-packages (4.1.0.25)
Requirement already satisfied: numpy>=1.14.5 in f:\anaconda3\lib\site-packages (from opencv-python==4.1.0.25) (1.16.4)
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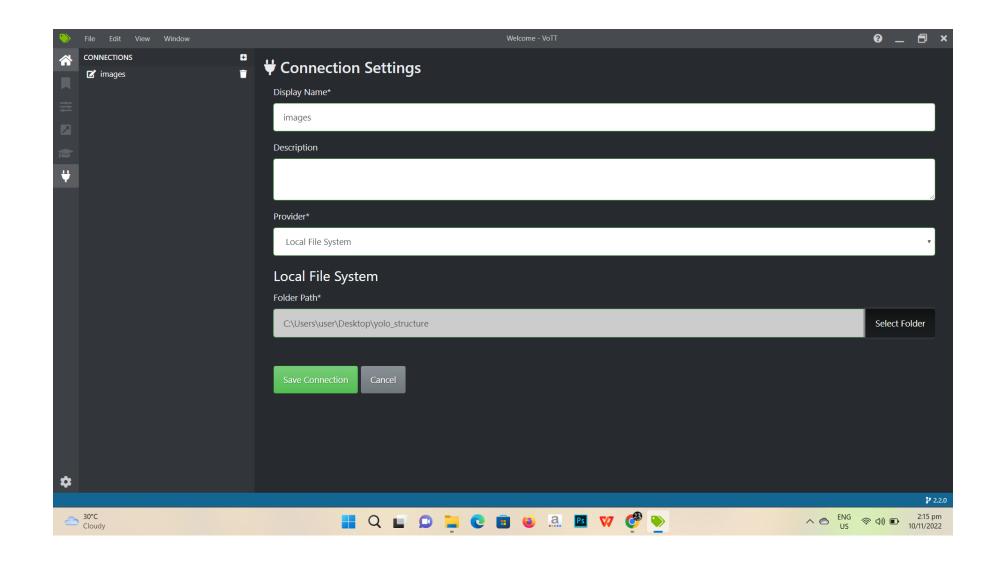
n X Anaconda Prompt (Anaconda3) Requirement already satisfied: grpcio>=1.8.6 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.50.0) Requirement already satisfied: google-pasta>=0.1.6 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (0.2.0) Requirement already satisfied: termcolor>=1.1.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (2.1.0) Requirement already satisfied: absl-py>=0.7.0 in f:\anaconda3\lib\site-packages (from tensorflow==1.15.2) (1.3.0) Requirement already satisfied: setuptools>=41.0.0 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (41.0.1) Requirement already satisfied: werkzeug>=0.11.15 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (0.15.4) Requirement already satisfied: markdown>=2.6.8 in f:\anaconda3\lib\site-packages (from tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (3.4.1) Requirement already satisfied: h5py in f:\anaconda3\lib\site-packages (from keras-applications>=1.0.8->tensorflow==1.15.2) (2.9.0) Requirement already satisfied: importlib-metadata>=4.4; python version < "3.10" in f:\anaconda3\lib\site-packages (from markdown>=2.6.8->tensorboard<1.16.0,>=1.15.0->te nsorflow==1.15.2) (5.0.0) Requirement already satisfied: typing-extensions>=3.6.4; python version < "3.8" in f:\anaconda3\lib\site-packages (from importlib-metadata>=4.4; python version < "3.10" ->markdown>=2.6.8->tensorboard<1.16.0,>=1.15.0->tensorflow==1.15.2) (4.4.0) Requirement already satisfied: zipp>=0.5 in f:\anaconda3\lib\site-packages (from importlib-metadata>=4.4; python version < "3.10"->markdown>=2.6.8->tensorboard<1.16.0,> =1.15.0->tensorflow==1.15.2) (0.5.1) (base) C:\Users\Super User>pip install keras==2.2.4 Requirement already satisfied: keras==2.2.4 in f:\anaconda3\lib\site-packages (2.2.4) Requirement already satisfied: keras-preprocessing>=1.0.5 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.1.2) Requirement already satisfied: pyyaml in f:\anaconda3\lib\site-packages (from keras==2.2.4) (5.1.1) Requirement already satisfied: scipy>=0.14 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.2.1) Requirement already satisfied: h5py in f:\anaconda3\lib\site-packages (from keras==2.2.4) (2.9.0) Requirement already satisfied: six>=1.9.0 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.12.0) Requirement already satisfied: numpy>=1.9.1 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.16.4) Requirement already satisfied: keras-applications>=1.0.6 in f:\anaconda3\lib\site-packages (from keras==2.2.4) (1.0.8) (base) C:\Users\Super User>pip install opencv-python==4.1.0.25 Requirement already satisfied: opency-python==4.1.0.25 in f:\anaconda3\lib\site-packages (4.1.0.25) Requirement already satisfied: numpy>=1.14.5 in f:\anaconda3\lib\site-packages (from opency-python==4.1.0.25) (1.16.4) (base) C:\Users\Super User>pip install Pillow==6.2.2 Requirement already satisfied: Pillow==6.2.2 in f:\anaconda3\lib\site-packages (6.2.2) (base) C:\Users\Super User>pip install progressbar Requirement already satisfied: progressbar in f:\anaconda3\lib\site-packages (2.5) (base) C:\Users\Super User>\_

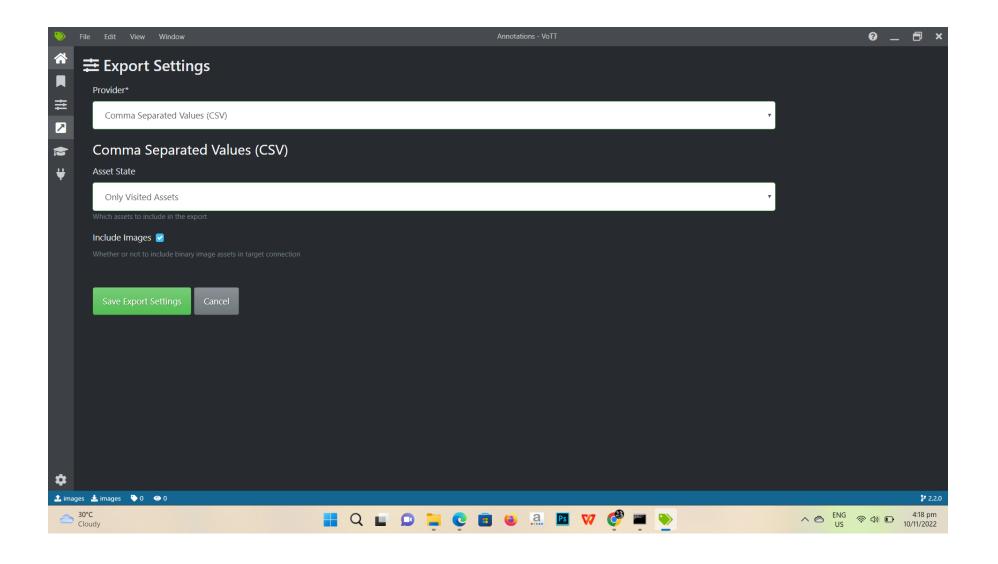
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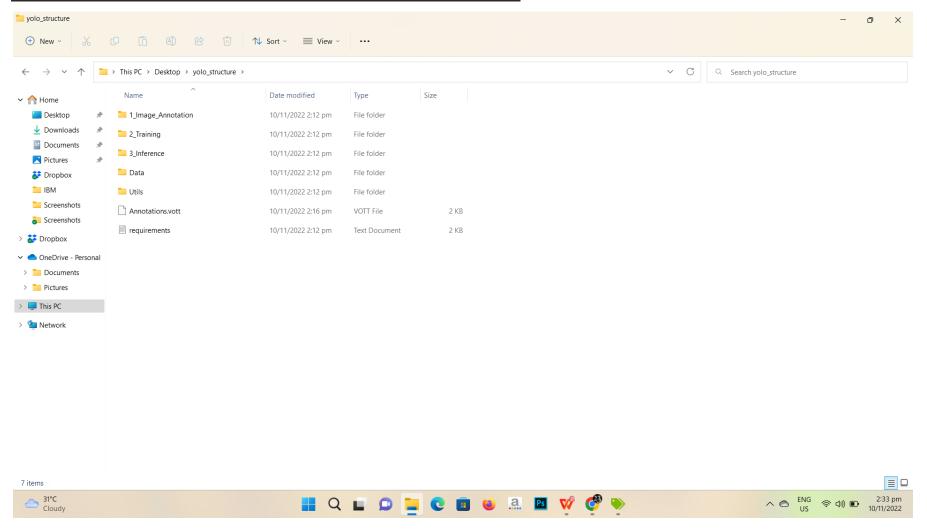
## STEP 3: Install Microsoft's Visual Object Tagging Tool (VoTT)



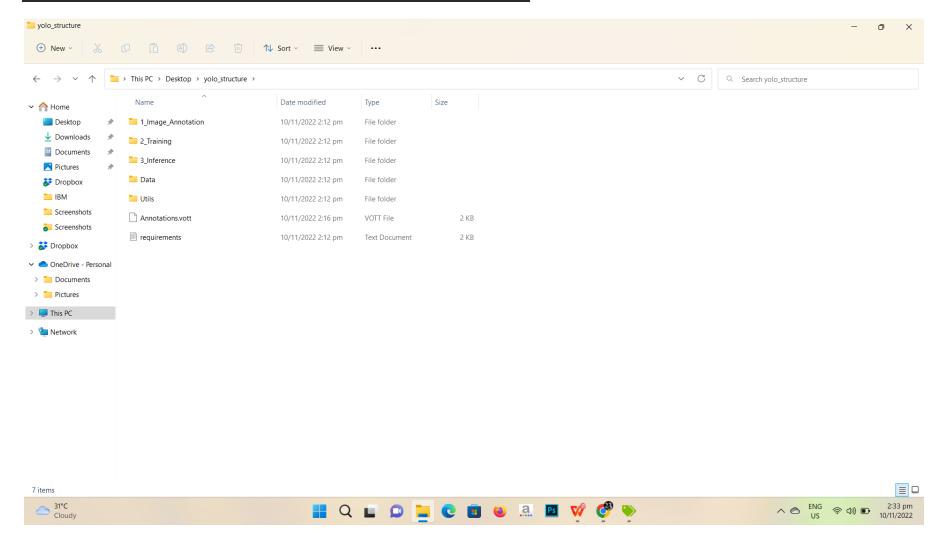




## **STEP 3: Download YOLO Project Structure**



#### **STEP 4: Download YOLO Project Structure**



## **Create Dataset**

#### **STEP 5:**

