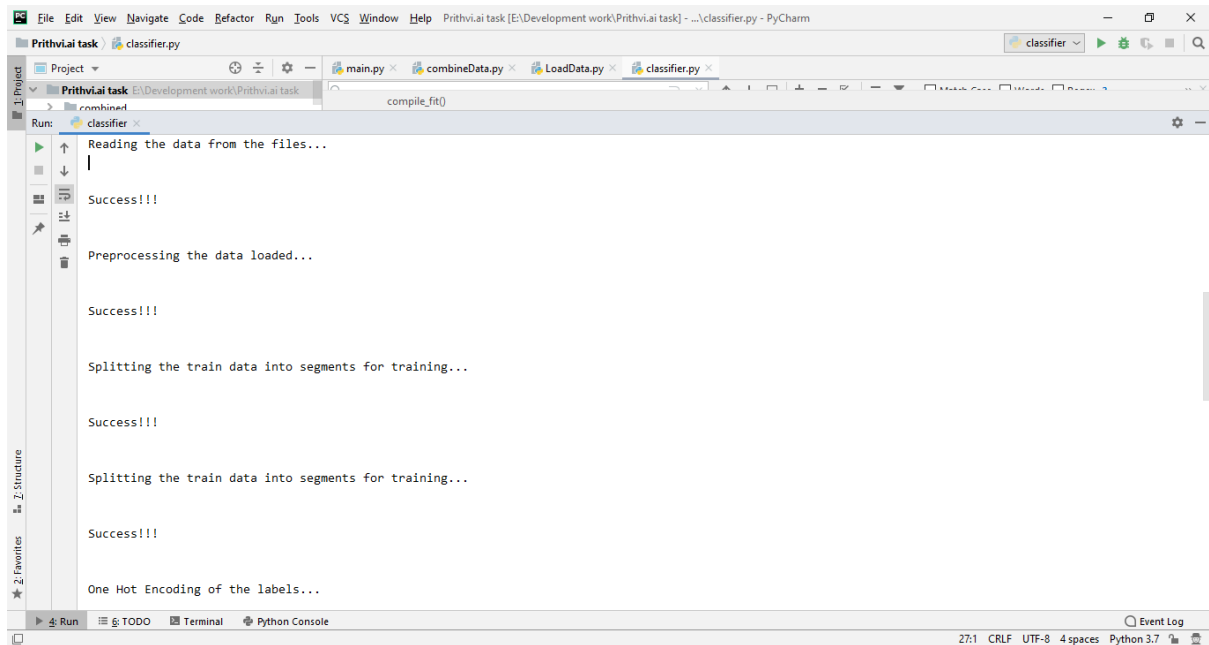


# SUBMISSION FILE FOR MACHINE LEARNING TASK

## SCREENSHOTS OF ACCURACY



This screenshot shows the initial execution of the classifier.py script in PyCharm. The Run console displays the following output:

```
Reading the data from the files...
|
Success!!!

Preprocessing the data loaded...

Success!!!

Splitting the train data into segments for training...

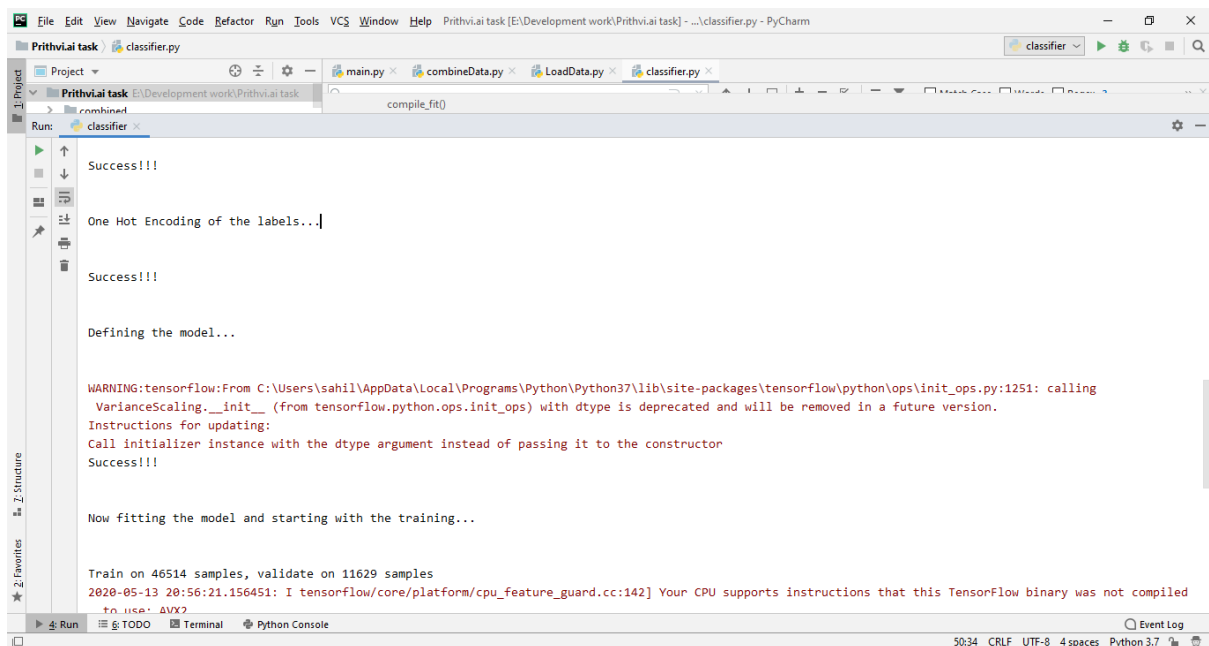
Success!!!

Splitting the train data into segments for training...

Success!!!

One Hot Encoding of the labels...
```

The interface includes a Project view on the left showing the file structure, and a Run toolbar at the bottom with buttons for Run, TODO, Terminal, and Python Console. The status bar at the bottom right indicates the file encoding (UTF-8) and the Python version (3.7).



This screenshot shows the continuation of the classifier.py script execution. The Run console displays the following output:

```
Success!!!

One Hot Encoding of the labels...

Success!!!

Defining the model...

WARNING:tensorflow:From C:\Users\sahil\AppData\Local\Programs\Python\Python37\lib\site-packages\tensorflow\python\ops\init_ops.py:1251: calling
VarianceScaling.__init__ (from tensorflow.python.ops.init_ops) with dtype is deprecated and will be removed in a future version.
Instructions for updating:
Call initializer instance with the dtype argument instead of passing it to the constructor
Success!!!

Now fitting the model and starting with the training...

Train on 46514 samples, validate on 11629 samples
2020-05-13 20:56:21.156451: I tensorflow/core/platform/cpu_feature_guard.cc:142] Your CPU supports instructions that this TensorFlow binary was not compiled
to use: AVX2
```

The interface shows the same PyCharm environment as the first screenshot, with the Run console now displaying the model definition and the start of the training process. The status bar at the bottom right shows the time as 50:34.

```
File Edit View Navigate Code Refactor Run Tools VCS Window Help Prithvi.ai task [E:\Development work\Prithvi.ai task] - ...classifier.py - PyCharm
Prithvi.ai task classifier.py
Project Prithvi.ai task
Run: classifier
Train on 46514 samples, validate on 11629 samples
2020-05-13 20:56:21.156451: I tensorflow/core/platform/cpu_feature_guard.cc:142] Your CPU supports instructions that this TensorFlow binary was not compiled
to use: AVX2
Epoch 1/10
46514/46514 - 45s - loss: 1.6764 - acc: 0.4222 - val_loss: 1.6985 - val_acc: 0.4963
Epoch 2/10
46514/46514 - 43s - loss: 1.1768 - acc: 0.5974 - val_loss: 1.7380 - val_acc: 0.5196
Epoch 3/10
46514/46514 - 43s - loss: 0.9626 - acc: 0.6723 - val_loss: 1.7489 - val_acc: 0.5279
Epoch 4/10
46514/46514 - 44s - loss: 0.8069 - acc: 0.7267 - val_loss: 2.0616 - val_acc: 0.5271
Epoch 5/10
46514/46514 - 43s - loss: 0.7020 - acc: 0.7624 - val_loss: 2.1094 - val_acc: 0.5189
Epoch 6/10
46514/46514 - 44s - loss: 0.6237 - acc: 0.7908 - val_loss: 2.2251 - val_acc: 0.5146
Epoch 7/10
46514/46514 - 43s - loss: 0.5577 - acc: 0.8128 - val_loss: 2.2206 - val_acc: 0.5326
Epoch 8/10
46514/46514 - 44s - loss: 0.5048 - acc: 0.8322 - val_loss: 2.4145 - val_acc: 0.5178
Epoch 9/10
46514/46514 - 43s - loss: 0.4565 - acc: 0.8484 - val_loss: 2.5438 - val_acc: 0.5181
Epoch 10/10
46514/46514 - 43s - loss: 0.4253 - acc: 0.8576 - val_loss: 2.7176 - val_acc: 0.5089
Success!!!
69:34 CRLF UTF-8 4 spaces Python 3.7
```

```
File Edit View Navigate Code Refactor Run Tools VCS Window Help Prithvi.ai task [E:\Development work\Prithvi.ai task] - ...classifier.py - PyCharm
Prithvi.ai task classifier.py
Project Prithvi.ai task
Run: classifier
Instructions for updating:
Use tf.where in 2.0, which has the same broadcast rule as np.where
2020-05-13 20:21:25.521871: I tensorflow/core/platform/cpu_feature_guard.cc:142] Your CPU supports instructions that this TensorFlow binary was not compiled
to use: AVX2
Epoch 1/8
46514/46514 - 47s - loss: 2.1042 - acc: 0.2877 - val_loss: 1.8622 - val_acc: 0.4113
Epoch 2/8
46514/46514 - 47s - loss: 1.5794 - acc: 0.4493 - val_loss: 1.7307 - val_acc: 0.4582
Epoch 3/8
46514/46514 - 47s - loss: 1.3794 - acc: 0.5228 - val_loss: 1.7590 - val_acc: 0.4705
Epoch 4/8
46514/46514 - 49s - loss: 1.2258 - acc: 0.5789 - val_loss: 1.7408 - val_acc: 0.4975
Epoch 5/8
46514/46514 - 46s - loss: 1.1024 - acc: 0.6215 - val_loss: 1.7849 - val_acc: 0.5072
Epoch 6/8
46514/46514 - 48s - loss: 1.0017 - acc: 0.6565 - val_loss: 1.7254 - val_acc: 0.5248
Epoch 7/8
46514/46514 - 45s - loss: 0.9213 - acc: 0.6852 - val_loss: 1.8448 - val_acc: 0.5313
Epoch 8/8
46514/46514 - 46s - loss: 0.8535 - acc: 0.7069 - val_loss: 1.9118 - val_acc: 0.5231
Success!!!

Testing the model on the test data given...
94:1 CRLF UTF-8 4 spaces Python 3.7
```