# Executing the Machine Learning Classifier Application

1. Open a terminal/command prompt.
2. Navigate to the directory “../MachineLearningClassifiers” where the “main.py” script file is located.
3. Execute one of the following commands:

|  |  |  |
| --- | --- | --- |
|  | Original Images | Pre-Processed Images |
| VGG-16 | python main.py -c **v** -m **o** | *Under Development, not recommended for use with VGG-16 at this time.* |
| K-Nearest Neighbor | python main.py -c **k** -m **o** | python main.py -c **k** -m **p** |
| Decision Tree | python main.py -c **d** -m **o** | python main.py -c **d** -m **p** |

1. Once executed, the script should execute automatically.

**Note:** **The GridSearchCV method takes some time to execute, I have intentionally left it out for this demonstration.**

* 1. Each script generates matplotlib graphs after each fold of execution and execution will not continue until the graph has been closed to allow for inspection of the output of the classifier.
  2. Each classifier allows displays the images that were misclassified by the classifier (if applicable), execution will not continue until the image’s windows have been closed. **To close all image windows, press ESC.**

1. Once execution is completed, the output for each graph will have been saved in the location “../MachineLearningClassifiers/*{Classifier}*, where *{Classifier}* is the classification model used.