

CS5542 Big Data Apps and Analytics

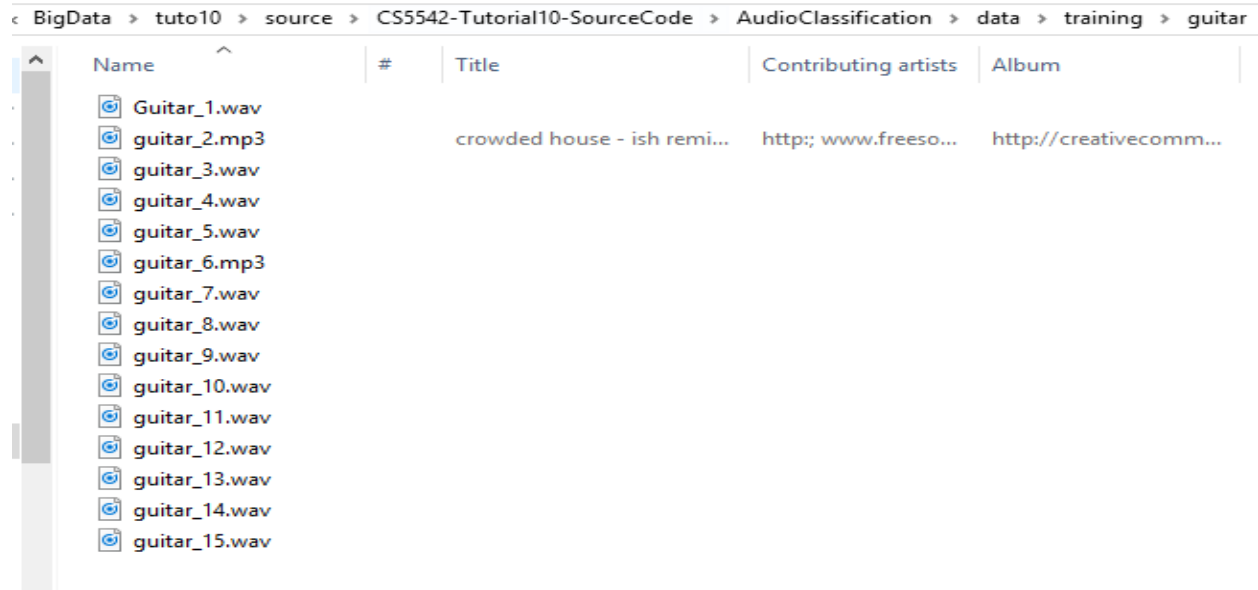
Lab-10

ClassId Student_1 : 27

ClassId Student_2: 19

1) Audio Collection Collected guitar and flute data.

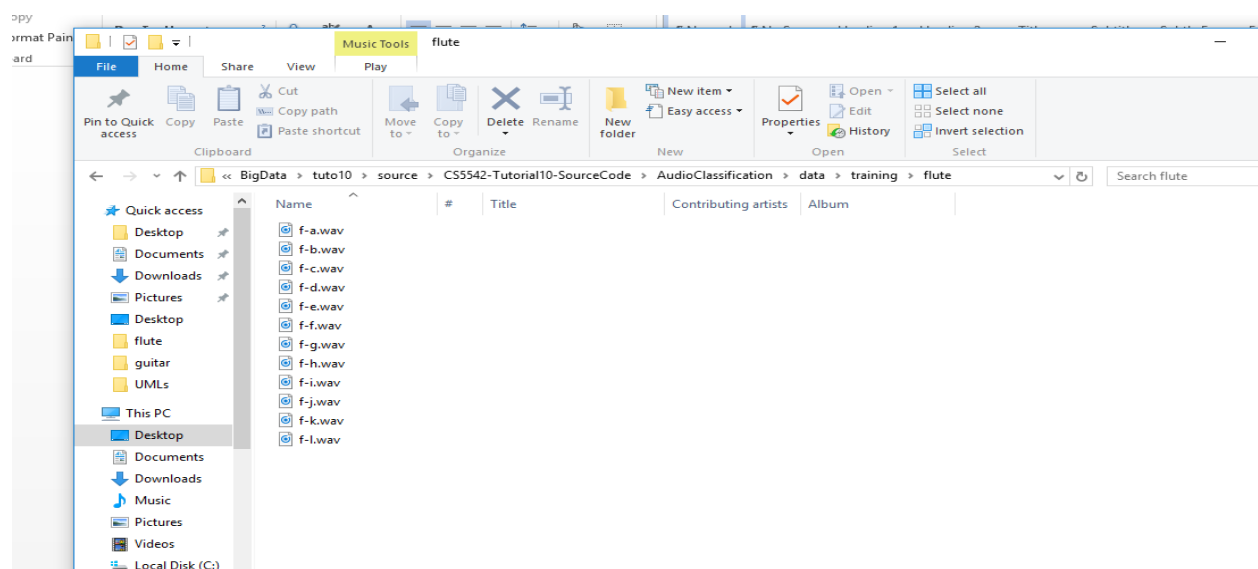
Guitar



The screenshot shows a Windows File Explorer window with the address bar path: < BigData > tuto10 > source > CS5542-Tutorial10-SourceCode > AudioClassification > data > training > guitar. The main pane displays a list of 15 audio files, all named 'guitar_1.wav' through 'guitar_15.wav'. The right pane shows a table with columns: Name, #, Title, Contributing artists, and Album. The table contains one row of data for 'guitar_2.mp3'.

Name	#	Title	Contributing artists	Album
guitar_2.mp3		crowded house - ish remi...	http; www.freeso...	http://creativecomm...

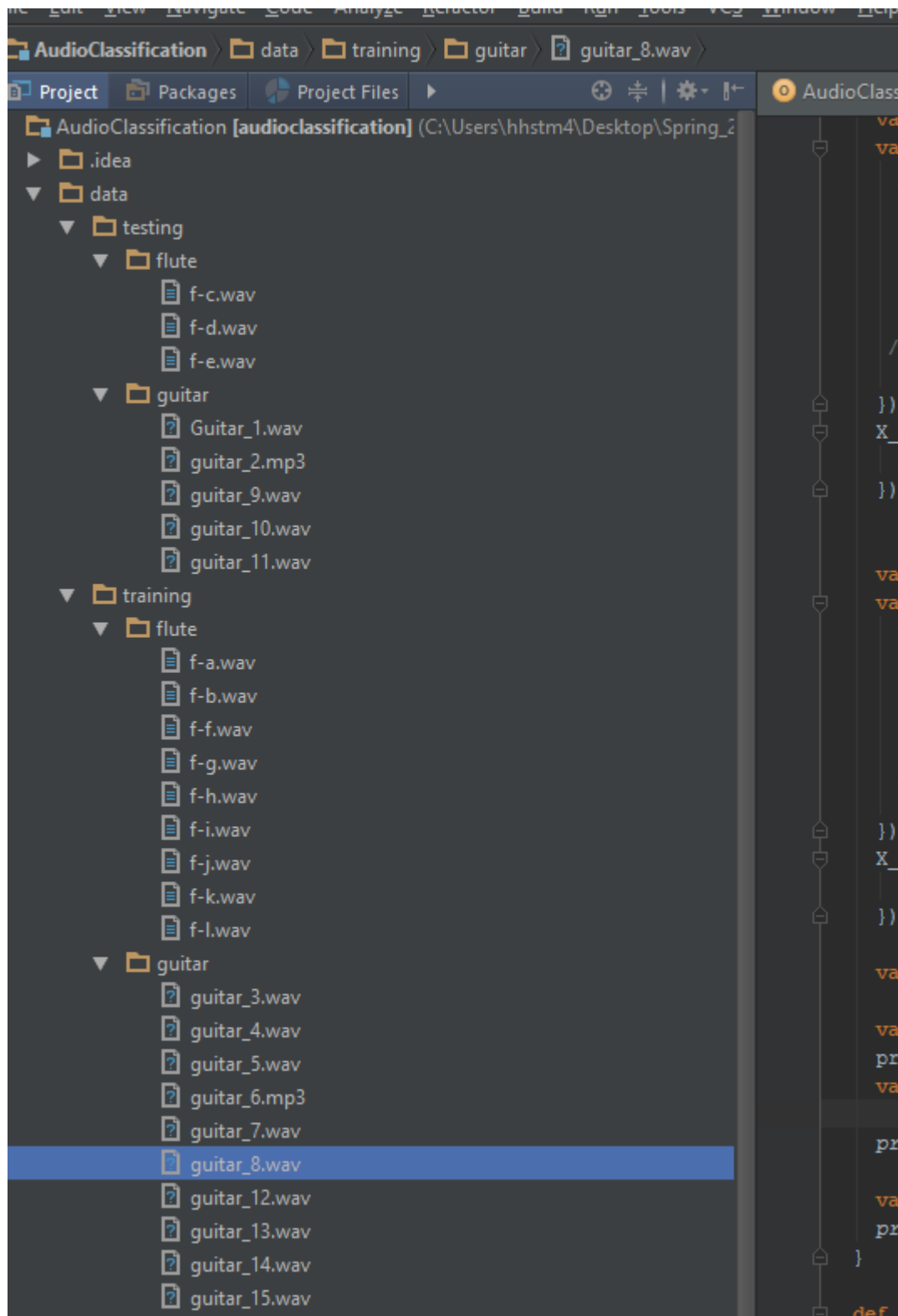
Flute:



The screenshot shows a Windows File Explorer window with the address bar path: < BigData > tuto10 > source > CS5542-Tutorial10-SourceCode > AudioClassification > data > training > flute. The main pane displays a list of 11 audio files, all named 'f-a.wav' through 'f-l.wav'. The right pane shows a table with columns: Name, #, Title, Contributing artists, and Album. The table is currently empty.

Name	#	Title	Contributing artists	Album
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Divided into training and testing



2. Audio Classification based on the categories related to your project

Generating features from Training audio data.

```
2-Tutorial10-SourceCode/CS5542-Tutorial10-SourceCode/AudioClassification/mydata/training/flute/f-a.wav
Tutorial10-SourceCode/CS5542-Tutorial10-SourceCode/AudioClassification/mydata/training/flute/f-a.wav328.0:1.1009993693540614E-7;0.063720703125;0.6533333333333333;0.06426912184782502
```

Compilation completed successfully in 4s 93ms (4 minutes ago)

Generating features from Testing audio data.

```
116))
-SourceCode/CS5542-Tutorial10-SourceCode/AudioClassification/mydata/testing/flute/f-i.wav266.0:9.516952559351921E-9;0.056884765625;0.6866666666666666;0.06259847826162264
-SourceCode/CS5542-Tutorial10-SourceCode/AudioClassification/mydata/testing/flute/f-l.wav206.0:2.747453800345668E-9;0.644921875;0.66;0.05343328960897331
```

It went to driver

Accuracy

```
Run AudioClassification
16/04/13 00:00:40 INFO Executor: Running task 1.0 in stage 5.0 (TID 11)
16/04/13 00:00:40 INFO WholeTextFileRDD: Input split: Paths: C:/Users/Rakesh/Desktop/Big Data Analytics and apps/Tutorial Labs/Lab10/CS5542-Tutorial10-SourceCode/CS5542-Tutorial10-
16/04/13 00:00:40 INFO WholeTextFileRDD: Input split: Paths: C:/Users/Rakesh/Desktop/Big Data Analytics and apps/Tutorial Labs/Lab10/CS5542-Tutorial10-SourceCode/CS5542-Tutorial10-
16/04/13 00:00:40 INFO Executor: Finished task 0.0 in stage 5.0 (TID 10). 2082 bytes result sent to driver
16/04/13 00:00:40 INFO TaskSetManager: Finished task 0.0 in stage 5.0 (TID 10) in 87 ms on localhost (1/2)
Accuracy : 0.7777777777777778
16/04/13 00:00:40 INFO Executor: Finished task 1.0 in stage 5.0 (TID 11). 2082 bytes result sent to driver
16/04/13 00:00:40 INFO TaskSetManager: Finished task 1.0 in stage 5.0 (TID 11) in 99 ms on localhost (2/2)
16/04/13 00:00:40 INFO DAGScheduler: ResultStage 5 (count at AudioClassification.scala:68) finished in 0.101 s
16/04/13 00:00:40 INFO TaskSchedulerImpl: Removed TaskSet 5.0, whose tasks have all completed, from pool
16/04/13 00:00:40 INFO DAGScheduler: Job 4 finished: count at AudioClassification.scala:68, took 0.110300 s
16/04/13 00:00:40 INFO SparkContext: Starting job: collectAsMap at MulticlassMetrics.scala:49
16/04/13 00:00:40 INFO DAGScheduler: Registering RDD 10 (map at MulticlassMetrics.scala:46)
16/04/13 00:00:40 INFO DAGScheduler: Got job 5 (collectAsMap at MulticlassMetrics.scala:49) with 2 output partitions
```

Compilation completed successfully in 4s 93ms (4 minutes ago)

3. Notification on devices

With audio flute

