Lab report for assignment 10

Vipin Reddy 24

1. Question:

Audio collection based on the tags (related to your project)

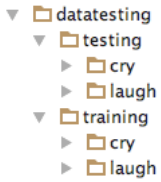
a. Training Datasets (audio data from smart devices or online sound repositories such as https://www.freesound.org/)

b. Testing Datasets (audio data from smart devices)

Description:

Here, we defined two categories: laugh and cry. Training datasets and testing data were gotten from https://www.freesound.org/. These file were put into folder “datatesting”

Screenshots:



2. Question:

Audio Classification based on the categories related to your project.

Description:

Audio Classification was done by weka feature extraction.

Screenshots:

```
===== Evaluating on filtered (training) dataset =====

Correctly Classified Instances           8               57.1429 %
Incorrectly Classified Instances         6               42.8571 %
Kappa statistic                          0
Mean absolute error                      0.4945
Root mean squared error                  0.5336
Relative absolute error                100      %
Root relative squared error            106.9196 %
Total Number of Instances               14

=== Detailed Accuracy By Class ===

               TP Rate   FP Rate   Precision   Recall  F-Measure   ROC Area  Class
                 0         0          0         0         0          0.417    cry
                 1         1          0.571     1         0.727      0.417    laugh
Weighted Avg.    0.571     0.571      0.327     0.571     0.416      0.417

========= Confusion Matrix =========
0.0  6.0
0.0  8.0
@relation AudioSamples

@attribute Zero_Crossings numeric
@attribute LPC numeric
@attribute class {cry,laugh}

@data
5020,-0.986652,?
===== Classified instance =====
Class predicted: laugh
```

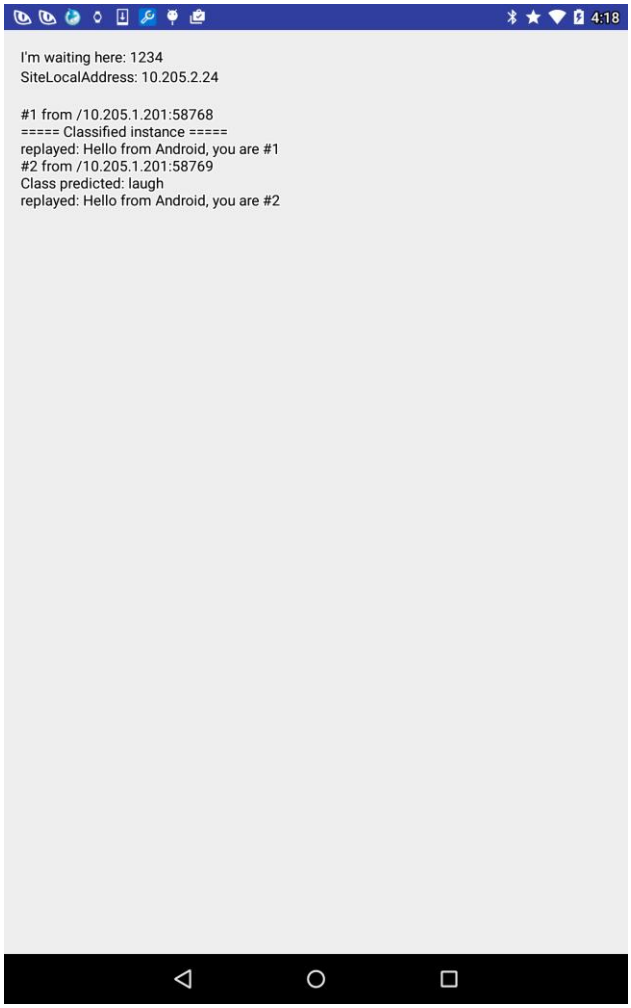
3. Question:

Notification to smartphone/smartwatch.

Description:

When the testing data is classified, the result will be sent to the device.

Screenshots:


4:18
I'm waiting here: 1234
SiteLocalAddress: 10.205.2.24
#1 from /10.205.1.201:58768
===== Classified instance =====
replayed: Hello from Android, you are #1
#2 from /10.205.1.201:58769
Class predicted: laugh
replayed: Hello from Android, you are #2