

**Tutorial 4 Assignment (Due 02/16/17 by 11:59 PM)***Dayu Wang (45)***1. Spark Programming****1.1. Description of Dataset**

The dataset consists of **emoji** icons. The data is separated into two classes, the *smiling* icons and *crying* icons. I used the method mentioned in tutorial class and **decision tree algorithm** (instead of the random forest model in the TA's source code). **Figure 1** lists some images in my dataset.



**Figure 1.** Examples of my dataset of **emoji** of smiling and crying.

There are **40** training images (20 smiles and 20 cries) and **6** test images (3 smiles and 3 cries).

**1.2. Purpose behind Image Classification**

Image classification applied on **emoji** impressions can significantly help researches on cross-platform emoji interpretation area. It opens a novel way to recognize and translate new impressions, with the rapid development of new platform/devices nowadays.

**1.3. Accuracy and Confusion Matrix**

```

Output.txt - Notepad
File Edit Format View Help
===== Confusion Matrix =====
2.0  1.0
2.0  1.0
Accuracy: 0.5

```

**2. Google Conversion API**

Web server: Apache Tomcat 8.5.11

Please see the code in my GitHub account.