ASSIGNMENT 10

QUESTION\_\_ **Audio Classification and Smart Phone Notification**

1) 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)

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

3) Notification to smartphone/smartwatch

4) Bonus points:

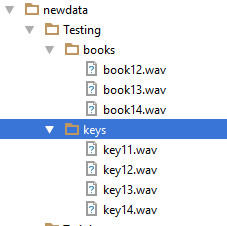
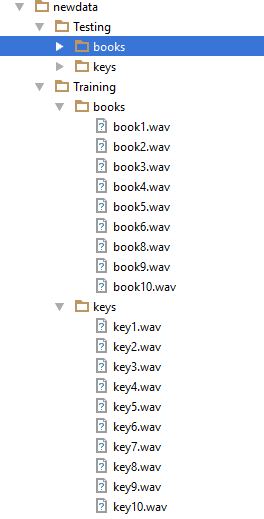
Music Recommendation system (related to your own project)

a. make a recommendation based on user profile (e.g., preferences, location, gender, age)

b. Recommendation through smartphone/smartwatch using your ML application

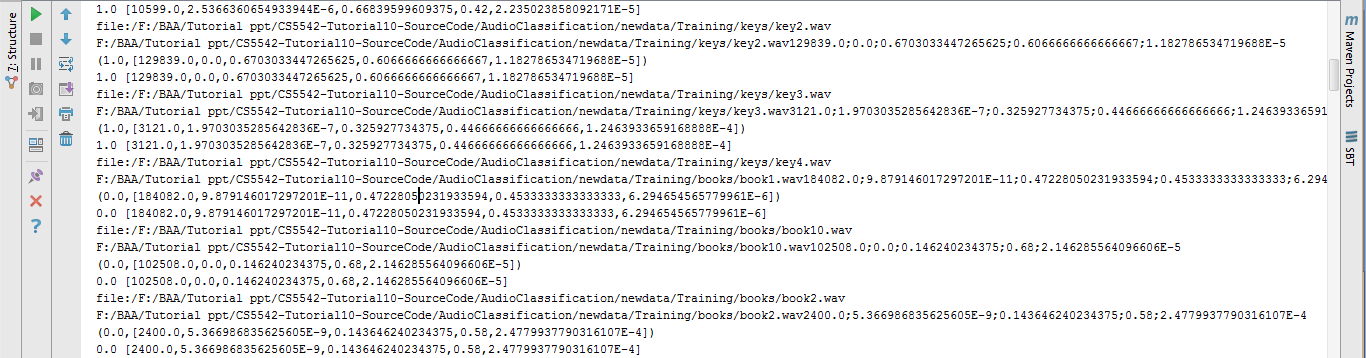
**Description:**

1. **Audio Collection: collected sounds of keys and books and divided into training and testing data.**

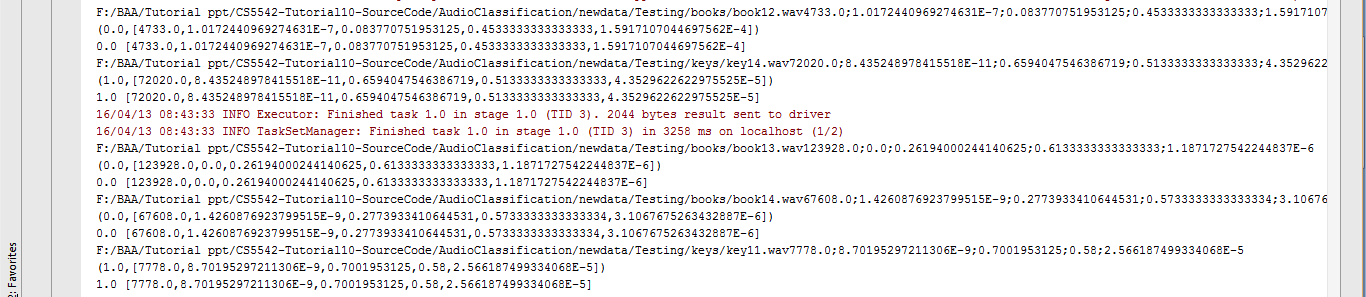
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1. **Audio classification based on categories related to your project**

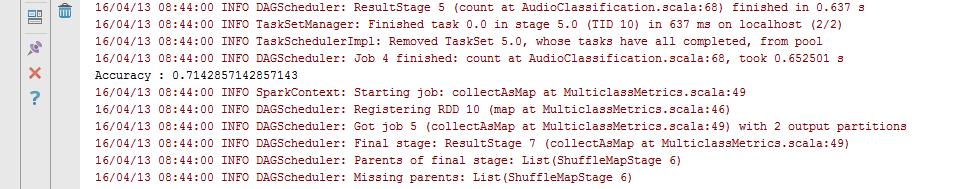
**Training keys and books data and generating features from training audio data:**

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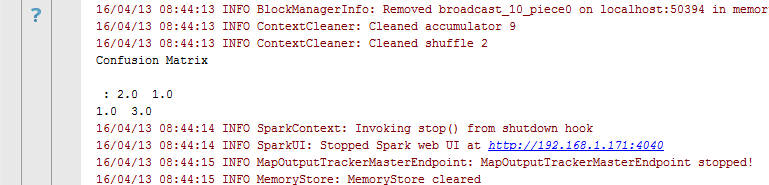
**Feature generation from testing audio data:**

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**Accuracy percent: 71%**

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**Confusion matrix: (2+3)/(1+2+3+1)=71.42%**

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**3. Recommendation To Smart Phone**