**Requirement Understanding Document**

**Audio Management Application**

**by**

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Thank you for inquiring. As per your requirement mentioned, we will deliver you a software that will be able to detect face from the image and predict age and gender.

**General Understanding -**

The main idea about this project is to open the recorded files and play those audio files on multiple sound cards. In this project we will use a raspberry pi device which will act as the center node to which all the sound cards are going to be connected. Following would be the working idea of the project :-

1. File transfer application :- This application will be installed in all the device from where you want to share the audio file. This application will allow you to select multiple files and send them to the main center node to be played.
2. Center Node(Raspberry pi) :- In raspberry pi there will be a folder named audio where all the transfered files were kept. All the sound cards are connected to this raspberry pi device.

We are going to need a display screen for the raspberry pi device so that you can interact with the audio playing application.

1. Play Audio :- There will be an application to play the received audio files. This will open up a dashboard for you where you can select the files that you want to play. Once you’ve selected the files you can now play them on all the sound cards.

Audio file playing mechanism :-

Once you opne the files in raspberry pi device, it will merge all the files in the background without causing any changes on the previous file. The merged file will not be saved anywhere, once played and application exits it will be destroyed, so that no unnecessary space will be used. And you will get your four files unchanged.  
  
After all the selected files are merged they are ready to be played. When you click on play icon, it will start playing the audio on all the connected sound cards in synchronized manner. You can play and pause the audio as per your desire.

**Hardware Requirement :-**

Raspberry pi 3 with Display Screen.

**Note:**

1. **W**[**e are expecting this to be completed within 10 days.**](https://azure.microsoft.com/en-in/try/cognitive-services/?api=face-api)

**Note: please let us know, if we are missing something.**

**Thank – You**

