Tell us what your idea is.

More and more multimedia(videos and audios) files are used and available, whether online or offline. Many people would like to use these files either to extract lyrics from a speech and translate them into another language to better understand the content, for other more music fan, to be able to sing on the tracks of their favorite artists.
With this project we want to

- Allow automatic extraction of the text (lyrics) of audio / video files that the user wants.
- Set up a concept of karaoke offering the user the opportunity to register sing, share his creations, mix his creations (effects on the voice, change the speed ...) and allow other users to sing on his creations . The division of the parts to be sung by each user will be specified by the owner of the creation and / or perform intelligently according to the preferences of the user.
- Allow the availability of these features online and offline with the exception of sharing creation (restricted to offline sharing opportunities such as bluetooth) and the possibility for other users to sing on his creations.

Here Machine Learning will be used to

- Extract text from audio / video files (offline and online)
- Cut out the extracted text effectively for karaoke

Tell us how you plan on bringing it to life.

At this moment, the project is at the stage of simple audio player. The user can play audio files that are in his phone.
Google will help me:

- *To optimize and perfect the existing audio player*
- *To add the video player feature and optimize the whole app*
- *By offering me the possibility to use their machine learning algorithm like that of their platform "Cloud Speech to-text Api"*
- *Embed this into the built application*
- *To set up mechanisms for cutting the text used after extraction to provide Karaoke talk.*

The On-Device ML technology will help
In the extraction (offline and / or online depending on the user) of the text of audio / video files

Effective cutting of the text obtained for use in Karaoke.

timeline

From my submission Until December 15: *I will continue to perfect the existing audio player*

Until early February: *I will integrate the video player and optimization of the entire application for a more ergonomic and efficient use.*

From the beginning of February to the beginning of March: *I will study the different ML algorithms with google engineers in order to find the one that will be the most favorable for this project. I will also work with them by implementing their advice to better optimize the existing application.*

From the beginning of March to the beginning of April: *I will integrate these algorithms for the extraction of the text and the cutting of this text for Karaoke according to the preferences of the user.*

From early April to mid-April: *integration of the extracted text to sing, recording creations, mixing of his creations, integration of possibilities to share his creations, and adding the possibility for other users to sing on creations of another.*

Mid April to early May: *some tests with the other selected candidates and the google team, then correction of the different possible bugs.decoupage of the extracted text to sing*

Tell us about you.

My name is KEMGANG NGOBEN Arthur Krawist, Master 2 student in computer science at Yaounde 1 University in Cameroon. It's been almost two years since I'm interested in native android development. In my starting I wanted to do Android just to help a friend in the development of an app for his own pleasure, but I really enjoyed the experience. Later I started full time in this activity and as a first personal project I wanted to make an audio player because I am a very big fan of music. It's been four months since I wanted to have the lyrics of a song but it was not available online so I think about this project. Since then I have evolved a little alone and I try to evolve on the project little by little.


ANDROID
DEVELOPER
CHALLENGE