



Please make a copy of this document and include this in your GitHub repository for your submission, using the tag #AndroidDevChallenge

Tell us what your idea is.

Describe in 250 words what the feature or service will do and how you'll use Machine Learning to push the bar:

Google has solved the issue of live captions which helps most of the people, the next thing we have to solve is, help the users to build their vocabulary.

One of the key indicators of students' success in school, on standardized tests, and indeed, in life, is their vocabulary. People who developed good reading habits possess good vocabulary. But what about the users who don't possess reading skills? Let's help the users to build the vocabulary while watching their favorite movie or TV series !!!

The most common thing when users encounter unknown vocabulary is either they pause the video switch to Google to check the meaning and switch back to video player or infer the meaning of the word from the context.

My idea is to display the vocabulary of all the words in the caption whenever user pauses the video on the fly and on device. This idea even saves the all context (screenshot of scene) of the unknown word and regularly help the user to memorize the unknown word and help them to build the vocabulary while watching movies or TV series.

Tell us how you plan on bringing it to life.

Current Work :

Currently I have implemented the Android video player app with the help of Google Exo player. This player will download the captions from opensearch.org and sync them to the player. Whenever user encounters unknown vocabulary in the captions they can pause the video and the vocabulary of the words are loaded

Demo Link - <https://www.youtube.com/watch?v=WD-lxJk0p58>.

Source Link - <https://github.com/praznaMunukutla/Vocabulary-Player>



Next Step:

1. Currently the vocabulary of unknown words are loaded from the internet, instead i'm working on having a limited onDevice lightweight dictionary (3MB).
2. Bookmark unknown vocab words and save the context (screenshot of the scene) where user encountered an unknown word.

Google Help:

1. Next help in Designing the UX of the application.
2. Developing a Memorization Algorithm.
3. An ML Algorithm which predicts the vocabulary level of the user and download meaning of the words which are not present in the lightweight dictionary in the background.
4. Support vocabulary for other languages like spanish, french (online solution)

RoadMap to May 1 2020:

1. Modify the UX of the player.
2. Upgrade Google exo player used in the project to the latest version.
3. Build onDevice built in dictionary.
4. Give an option of saving the context of vocabulary.
5. Memorization Algorithm which throws the flash card notifications to help users to identify the meaning of the learnt word
6. ML Algorithm to predict the vocabulary level of the user.

Tell us about you.

Im Prazna Munukutla a software engineer at Opentext Technologies at Hyderabad, Telangana, India. I have completed Bachelor of Technology in 2019 in information technology. I have started this project as my final year project which was well received and appreciated by fellow colleagues and students.

