**#AndroidDevChallenge**

**Tell us what your idea is.**

To see the unseen ( for visually challenged person). To hear the unheard ( for people with hearing challenge).*Describe in 250 words what the feature or service will do and how you’ll use Machine Learning to push the bar:*

**Tell us how you plan on bringing it to life. It will be installed as an app in android device.**

1. Potential Sample Code already written.

Step 1: Turn on google voice input.

Step 2: Get text from voice input.

Step 3: Translate it into preferred language of deaf person. On device ML, I am using language identification and translation. First time downloading of data model needs internet connection.

Sample code for this are already in GitHub repository ( <https://github.com/debmalya/AndroidDevChallenge> )

Step 4: Do image recognition. Open your camera and know the world around you.

1. List of ways can include google’s help.
   1. On device sentiment analysis.
   2. Image matching. With ‘Image labeling’ we can identify people, person, things. For any blind person can use it, can app inform h(er/im) a known person ( with name) is very close. (e.g. I scanned one of my friends (Mr. X / Ms. Y) image. Now with on device ML( image labeling) when finds the same person is approaching can inform that “(Ms. Y/ Mr. X) is coming”. This may help blind person.)
   3. Language identification for voice input. User can speak in any of the 110 languages supported by. From voice input language can be identified (e.g. French ( fr ), English (en ), German ( de ). Now from text it can identify the language.
2. Timeline on how you plan on bringing it to life by May 1, 2020
   1. Translation ( Sample is already there I will try to make it more customizable. Now it has provision to take voice input and translate it. I would like to make it from voice input identify the language, then translate it to preferred language and mother tongue). ( 02Dec2019 - 08Dec2019 )

This will help deaf people to understand what other people are communicating.

* 1. Voice to text ( After translation it will use text to speech so that visually challenged people can understand in their own language). (08Dec2019 - 31Dec2019).
  2. Text Recognition and text to speech (09Dec2019- 31Dec2019)
  3. Face detection image labeling (01Jan2020 - 31Jan2020)
  4. Matching detected face with known character (01Feb2020 - 28Feb2020)
  5. Extensive testing and check feature list (01Mar2020-31Mar2020)
  6. Publish the app in play store (01Apr2020 - 30Apr2020)

*Describe where your project is, how you could use Google’s help in the endeavor, and how you plan on using On-Device ML technology to bring the concept to life. The best submissions have a great idea combined with a concrete path of where you plan on going, which should include:*

* *(1) any potential sample code you’ve already written,*
* *(2) a list of the ways you could use Google’s help,*
* *(3) as well as the timeline on how you plan on bringing it to life by May 1, 2020.*

**Tell us about you.**

I have been developing software since 1996. I am grand new to Android. I develop bothway swipe button for confirmation (left to right) and rejection ( right to left swipe ). A great idea is just one part of the equation; we also want to learn a bit more about you. Share with us some of your other projects so we can get an idea of how we can assist you with your project.

**Next steps.**

**My GitHub repository is https://github.com/debmalya/AndroidDevChallenge . Currently I am translating from English to French with on device machine learning. Working on to make preferred language is a choice from the user. Other than translation, I would like to tone, image recognition and sentiment analysis. This is developed for person with hearing / visibility challenge. They were not able to detect the way (tone and sentiment) people talked to them. Here I am looking for help from google to do on device sentiment and tone analysis.**

* Be sure to include this cover letter in your GitHub repository
* Your GitHub repository should be tagged #AndroidDevChallenge
* Don’t forget to include other items in your GitHub repository to help us evaluate your submission; you can include prior projects you've worked on, sample code you've already built for this project, or anything else you think could be helpful in evaluating your concept and your ability to build it
* [**The final step is to fill out this form to officially submit your proposal.**](https://docs.google.com/forms/d/e/1FAIpQLSe43koQL33IzgxXQl29Ex3AhFuqd4hQzxLiXREqwRkDGtx1vA/viewform?usp=sf_link)