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:

In the era of negativity, let's spread positivity. The idea is to create an app that can help people analyze the text/message and fixing the anomaly of the message that deviates from what is standard, normal, or expected. It will also guide them towards how to make it more positive for the betterment of society using NLP and ML.

This can be helpful for anyone and can play a major role especially for bloggers, influencers and official mails, etc. There are many use-cases where it can be used including day to day conversations.

There are two parts. The first one which I have already implemented is used by thousands of users now is let's say

Eg - "You need to learn at least one new programming language every year".

It is a very negative statement. Using NLP I could implement an algorithm depending upon the API response that which statement is negative and then after the improvisation, it can be improved with something like - "Learning a new programming language is a great way to acquire new insights".

The second part of the idea is using On-Device ML to suggest to them how they can improve their statements like the anomaly keywords or even full phrases. The whole thing doesn't need to be inside the app only but also can be shown to the user using a floating text selection toolbar and then the results on an overlay popup. It still needs to be implemented.

Tell us how you plan on bringing it to life.

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.*

1) **I have already implemented the first phase of the app where you can either open the app and type/paste your text and you can analyze it for the level of negative/positivity and it also filters your negative statements depending on your score and magnitude or you can also just select any text in any app and then you can use analyze action in the floating text selection toolbar to easily access it. The APK and some screenshots are attached to the repository and the code is a part of a private repo as of now (I can give access to it and can also make it open source if needed). It's also available for testing as a part of my Click2Chat app -https://play.google.com/store/apps/details?id=com.mtechviral.clicktochat**

2) **I can use Google's help in implementing the second phase where I need Google's guidance to implement the On-Device Machine Learning (for offline capabilities) using Tensorflow Lite or MLKit by which I can give suggestions to the users that how can they improve their statements like the anomaly keywords or even full phrases. Right now I can only show them which statement is negative but I want to show them suggestions based on machine learning which will improve by time. Also, I want Google's mentorship to learn how can I train my model more using this data submitted to the app/tool.**

3) **The timeline is -**

   (Nov 2019 - Dec 2019) - 1st phase implementation and giving it to the users to get the feedback.

   - **NLP Based Results - Done**
   - **Showing All Negative Statements - Done**
   - **Analyze action in floating text selection toolbar - Done**
   - **Machine Learning-Based Suggestions to improve the statements - Not Done**
   - **Using Tensorflow to train the model - Not Done**

- **Making it offline using On-Device ML for privacy concerns - Not Done**

(Jan 2020 - Feb 2020) - Implementing the 2nd phase using Google's help and support to implement machine learning-based suggestions and also researching more use cases around this.

(Mar 2020) - Using Tensorflow to train the model using the app's data and also working on making it offline using On-Device ML for privacy concerns.

(Apr 2020) - Beta Testing the app with all features and releasing it.

Tell us about you.

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.

I'm Pawan Kumar. I am a Google Developer Expert for Flutter, Firebase, Dart and Web Tech. I work in a company called Flick2Know Technologies. I am also a part-time YouTuber running a channel "MTECHVIRAL" where I publish tech tutorials and also contribute regularly to open source. I recently built an open-source project "Devfest App" which is a template app for DevFest and being used by several GDGs around the globe. I have made many successful apps available on the Google Play Store and the App Store. I also worked on an MVP for the CNS Equipment Tracking app for Airport Authority of India during Smart India Hackathon.

Some Projects & Links -

1) Click2Chat - Click2Chat allows you to translate into 70 languages. Analyze messages and spread positivity. Send, schedule the message to your unsaved contact numbers and clean Favourite Messenger's message & Download stories. Link - https://play.google.com/store/apps/details?id=com.mtechviral.clicktochat
2) ReadyO - ReadyO offers the next-generation radio user experience with a beautiful user interface. It has the top radio channels with music facts and exclusive podcasts which updates frequently. It also comes with a dark mode. Link - https://play.google.com/store/apps/details?id=mtechviral.readyo
3) CNS - RTM - Real-Time Monitoring of CNS Equipment Spares. Project For Smart India Hackathon 2017 for Airport Authority of India. Link - https://github.com/iampawan/CNS-RTM

4) Flutter Example Apps - A collection of the open-source stuff I created with their youtube tutorials. Having 7.7k stars and 1.5k forks. Link - https://github.com/iampawan/FlutterExampleApps
5) Github Link - https://github.com/iampawan/
6) Youtube Link - https://youtube.com/mtechviral (42K Subscribers)

Next steps.

- 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.**