Tell us what your idea is.

As an environmentally conscious consumer, I care about how we throw things away. But would you be surprised to learn that a major study has found that 25% of what ends up in recycle bins are actually non-recyclable? As we all try to take care of the environment, every locality has different rules, restrictions and regulations that are designed to help - but aren't common knowledge! It would be cool to have an app that could help with all of this, and more. You could take a picture of an item - like a Starbucks cup - and the app could tell you whether it gets recycled in that area, where to find the nearest recycle bin, and more! It could even tell you what other rules apply to that area that you may not know or inform you of businesses nearby that have special offers for eco-friendly consumers like me. I want to do my part to save the planet - and Trash.ly could be the tool to help me do it.

Tell us how you plan on bringing it to life.

Application will use ML Kit to perform on-device inference with a TensorFlow Lite model. Fortunately it is relatively easy to assemble dataset for the model as it consists of very natural things which we use every day (plastic and paper caps, bags, bottles, etc.)

Currently I'm working on app architecture and skeleton as well as UX. While working on the project I'm going to incrementally commit code to the github repository provided.

In order to help me achieve the goal of the project I would kindly ask Google:
1) To provide free subscription of Google Cloud platform so to be able to create and train the model
2) To assign a Mentor for the project who can provide some guidance with using on-device ML framework.
3) To help me promote the project in order to reach a wide audience.

Proposed project Timeline:

December, 2019
To finalize requirements, to develop app architecture and skeleton + UI/UX mockups

January, 2019
To collect sample datasets and to train model on GCP

February, 2019
To convert model to TensorFlow lite, to deploy it into the app

March, 2019
To complete app development

April, 2019
To perform app testing, bugfix, stabilization

Tell us about you.

 I am Elvin Rakhmankulov, Mobile Solutions Architect, leading Mobile Competency Center at EPAM Systems (Software development firm). I live and work in Chicago, USA. My day job is helping our clients to design and build mobile solutions.
To share just some of the projects I'm working on you can have a look here:
https://play.google.com/store/apps/dev?id=5152681751557970278&hl=en
Also, I'm responsible for maintaining the open-source Android re-usable components, you can have a look at them here:

- https://github.com/epam/CoroutinesCache
- https://github.com/epam/CoroutinesExtensions
- https://github.com/epam/Android-Secure-Storage
- https://github.com/epam-mobile-lab/dagger2-generated-binds
- https://github.com/epam-mobile-lab/viewmodel-inject-dagger

I recently attended Android Dev Summit and got really inspired to participate in the challenge which allows utilizing some of the most interesting for me things: Android development, Machine Learning on-device and do a social good at the same time.

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CHALLENGE