Tell us what your idea is.

As a human, we always tend to learn new things and discover the nature. Knowledge can be gained from multiple sources, whether it includes books/articles/school etc. As a child's mind is always eager to learn new things, there are limited sources where they can gain accurate knowledge. "**Explorer**" is a mobile app, which uses the power of machine learning and android device camera to identify objects around the nature and provide appropriate knowledge with interactive illustrations. Whether it is a new species of plants, animals or even simple working of day to day machine, **"Explorer"** easily identifies using device camera and provides useful information about it. This will not only help children explore the nature but also motivates them to learn new things.

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.

The app makes use of device camera to capture live images and with the help of machine learning model trained on various classes of images, it identifies the subject present in camera view and gather all information about it from the internet and perform NLP to extract useful information and highlight them.

The first step will be to train a neural network for object detection for various classes, that includes (Plant species, Animal species, Simple day to day machines).

Once the model is trained it can be integrated with Tensorflow lite framework for android phone to identify object in camera.

The identified object is then searched over the internet or a knowledge repository, to present a cumulative information.

Timeline:

1. *10 ~ 15 January*: Train the neural net to identify objects for the dataset gathered.
2. End of January: Integrate the neural network model with android device.
3. End of March: Create some bunch of animation and interactive illustrations

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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 am currently working as a software engineer in travel industry domain. Previously I had made an end to end system to identify diseases present in Chest X-Ray images and recommend medical practitioner the possible treatment by making use of historical medical records.

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.

- 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.**


ANDROID
DEVELOPER
CHALLENGE