



**\*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.**

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We all love to see good looking walls with sceneries, flowers or cards. We take a lot of time on our decisions to arrange them, so we have a solution, just take a picture and it will auto arrange the best possible pattern on the wall and user can get the other possible beautiful patterns as well as a second step.

**Tell us how you plan on bringing it to life.**

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After getting image from the camera, App will ask user to define the area with in the captured image to define the space for placing objects. I will use TensorFlow Lite Object Detection API for on device machine learning. Then copying the detected objects on the wall and saving locally. Next, we need to train our TensorFlow data model.

We will send total number of detected object's images and their dimensions and total defined area by the user. Our trained model will return a matrix formula (I am currently working on this which is most challenging part) and I will extract that formula in app and render those locally stored images according to best possible pattern suggested by our trained model.

**Potential Code Sample:**

No.

**Google help**

I need suggestion from Google experts about my algorithm to make more efficient for training my model.

**Timeline:**

**December 2019**

Application Wireframe.



Brainstorming for Algorithm for Training TensorFlow Data model.

Some research for choose best suitable training data model.

- Single Shot Multibox Detector (SSD) with MobileNets.
- SSD with Inception V2.
- Region-Based Fully Convolutional Networks (R-FCN) with Resnet 101.
- Faster RCNN with Resnet 101.
- Faster RCNN with Inception Resnet v2.

### **Jan 2020**

Development of UI/UX.

### **Feb 2020**

Implementation of TensorFlow Object Detection API on captured images by device camera.  
Extracting Images from captured Image and rendering according to our algorithm.  
Rendering Images on canvas.

### **March 2020**

Unit testing.  
Close testing.  
Beta testing.

### **April 2020**

Improvement in all part of the projects according to the feedback.

### **May 2020**

Final uploading app to production.

**Tell us about you.**



I am Senior Android/Flutter developer, having 7+ years' experience in native apps development, During my experience, I have worked on Android, Java, Kotlin, Dart, Gradle(Groovy), XML, JSON, GIT, Javascript, C, C++, C#, Assembly.

Reactive Programming: RxAndroid, RxDart, Coroutine (Kotlin).

Development Tools, Eclipse, Android Studio, Visual Studio, VS Code, Unity3D.

Common Libraries/APIs: Firebase, Google analytics, Dagger 2, ButterKnife, EventBus, RxAndroid, Databinding, LiveData and Networking libraries volley, retrofit with RxAndroid, Restful API, Webservices.

Augmented reality: ARcore

Networking Libraries: Volley, Retrofit, Picasso, Glide, http package( Flutter).

Databases: SQLite, Sugar ORM, Realm, Room.

Unit Testing: Espresso, Junit, Mockito.

Version Controls: Git, Bitbucket, SVN, Github, AWS CodeCommit, Bitbucket, Sourcetree.

Frameworks: MVC, MVP, MVVM with clean architecture, Bloc pattern (Flutter).

Game Development: Oculus Rift (Virtual reality Games), Mobile Games.

Embedded Systems/ Internet of Things (IoT): Arduino Uno, Zigduino, Raspberry Pi, Beaglebone

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Some of my e-commerce work which is not related to the project

<https://play.google.com/store/apps/details?id=com.gareeb.user>

<https://play.google.com/store/apps/details?id=com.alchemative.outfitters.outfitters>

<https://play.google.com/store/apps/details?id=com.alchemative.ethnic>

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## 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.](#)

