


Allowing Android Apps to Access Google Cloud API Services

1. Create a new service account (<https://cloud.google.com/iam/docs/creating-managing-service-accounts#iam-service-accounts-create-console>)

Service accounts for project "ActivityRecognitionLSTM"

A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google. [Learn more](#)

Filter table							?	☰
<input type="checkbox"/>	Email	Status	Name ↑	Description	Key ID	Key creation date	Actions	
<input type="checkbox"/>	 android-service-account@activityrecognitionlstm.iam.gserviceaccount.com	✓	android_service_account	Service account for Android application to access LSTM model	No keys		⋮	

2. During or after creating a service account give the account the correct role (roles/ml.developer). See: <https://cloud.google.com/ml-engine/docs/access-control>

Add members to "ActivityRecognitionLSTM"

Add members, roles to "ActivityRecognitionLSTM" project

Enter one or more members below. Then select a role for these members to grant them access to your resources. Multiple roles allowed. [Learn more](#)

New members

android-service-account@activityrecognitionlstm.iam.gserviceaccount.com ✕ ?

Type to filter

GKE Hub
Hangouts Chat
IAM
Kubernetes Engine
Logging
Machine Learning E...
Memorystore Redis
Monitoring
ML Engine Admin
ML Engine Developer
ML Engine Viewer

[MANAGE ROLES](#)

3. Create a secret key (.JSON file) and store it locally

Create private key for "android_service_account"

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

Key type

☒ JSON

Recommended

☐ P12

For backward compatibility with code using the P12 format



CANCEL

CREATE

Service accounts for project "ActivityRecognitionLSTM"

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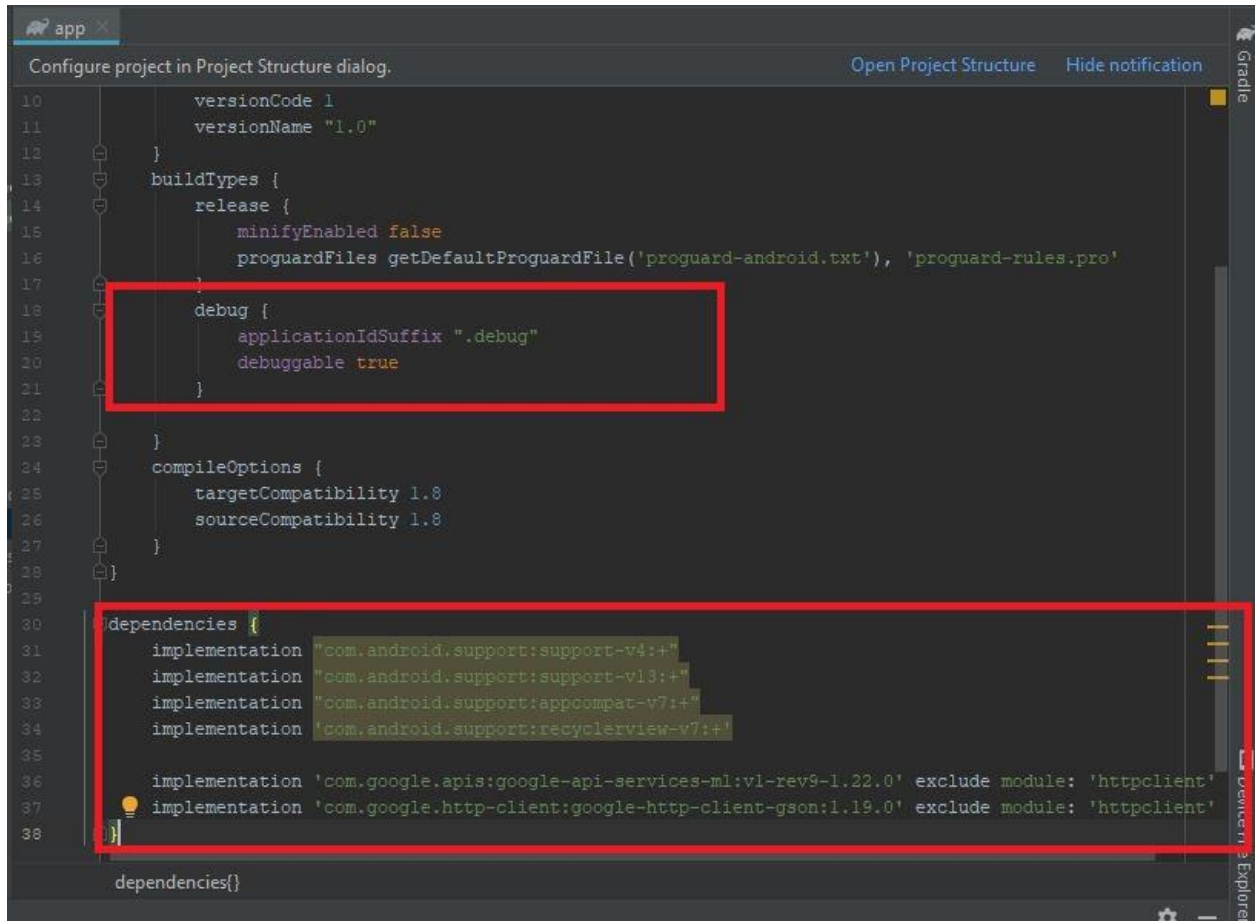
Filter table

<input type="checkbox"/>	Email	Status	Name ↑	Description	Key ID
<input type="checkbox"/>	 android-service-account@activityrecognitionlstm.iam.gserviceaccount.com		android_service_account	Service account for Android application to access LSTM model	0614a836e7af670376efdea8433444765595d8db

4. Clone the Github repository at this URL for the next steps:

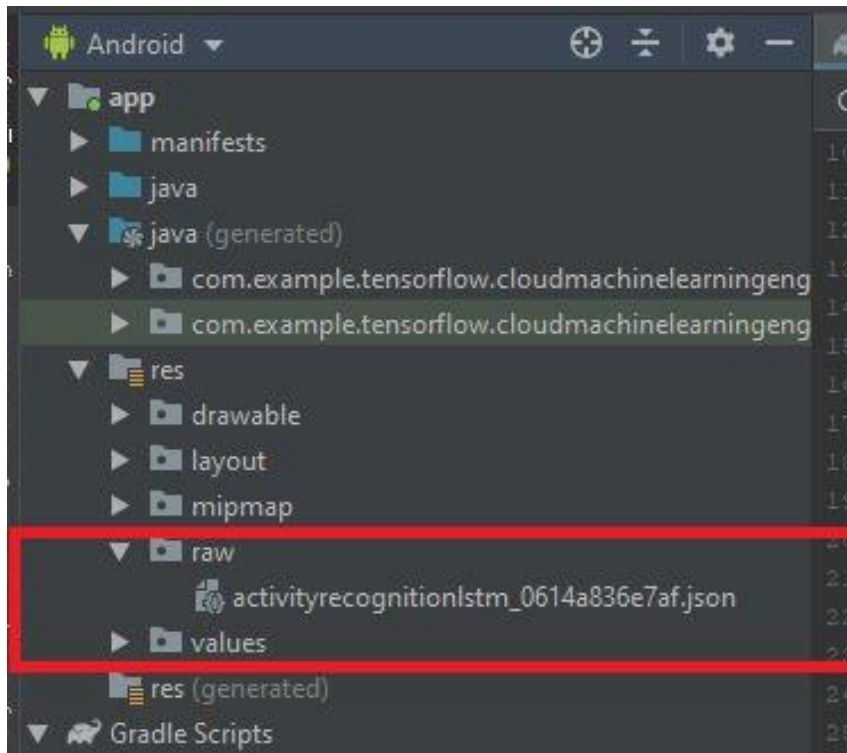
<https://github.com/googlesamples/android-TensorFlowCloudMachineLearningEngineStylizer>)

5. Update Gradle file to make it de-bugable and swap 'implementation' for 'compile' in the Gradle dependencies to get rid of error messages (dependencies are a bit outdated, but still appear to be working).

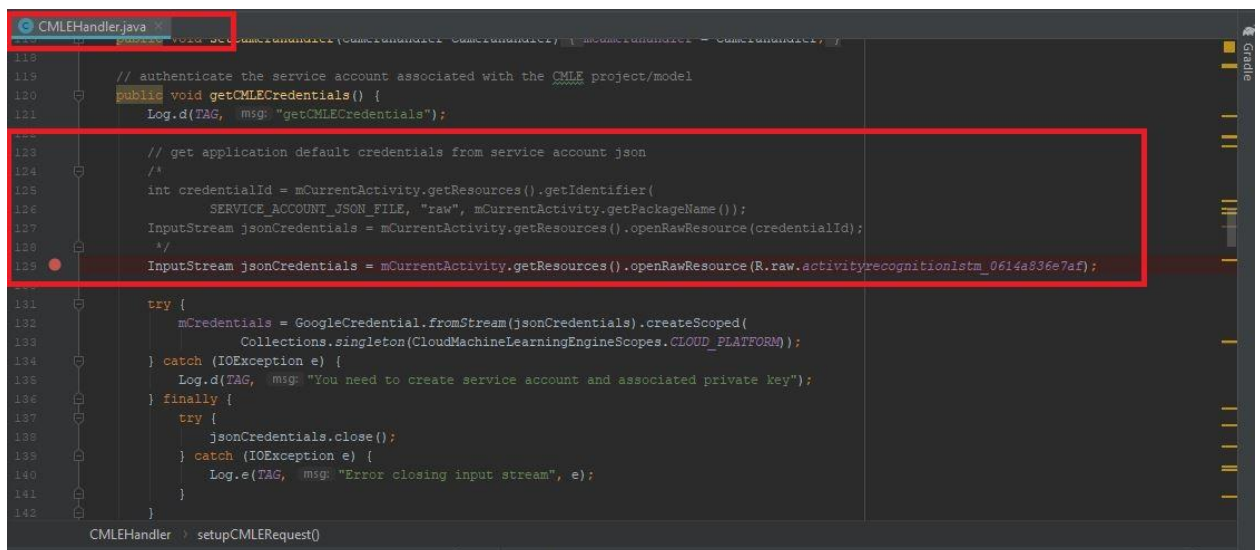


```
10     versionCode 1
11     versionName "1.0"
12 }
13 buildTypes {
14     release {
15         minifyEnabled false
16         proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
17     }
18     debug {
19         applicationIdSuffix ".debug"
20         debuggable true
21     }
22 }
23 }
24 compileOptions {
25     targetCompatibility 1.8
26     sourceCompatibility 1.8
27 }
28 }
29
30 dependencies {
31     implementation "com.android.support:support-v4:+"
32     implementation "com.android.support:support-v13:+"
33     implementation "com.android.support:appcompat-v7:+"
34     implementation "com.android.support:recyclerview-v7:+"
35
36     implementation 'com.google.apis:google-api-services-m1:vl-rev9-1.22.0' exclude module: 'httpclient'
37     implementation 'com.google.http-client:google-http-client-gson:1.19.0' exclude module: 'httpclient'
38 }
```

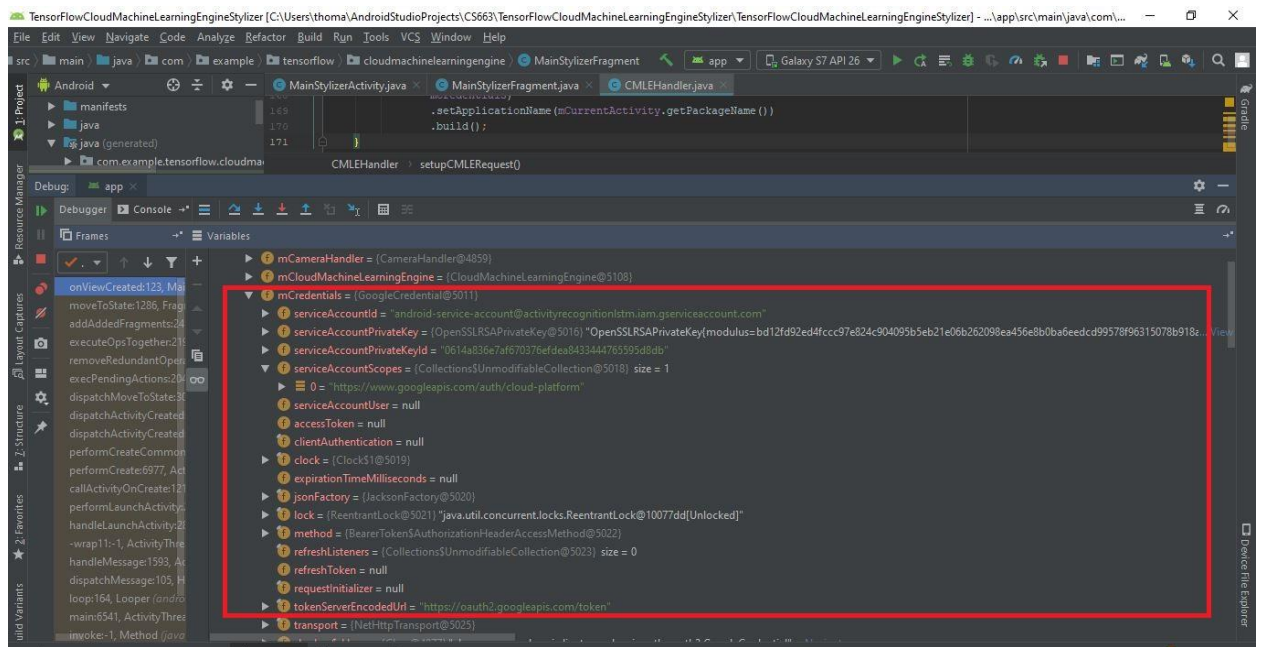
6. Create a 'raw' folder in the res directory of the project and copy the secret key created in step 3 into it.



- Open the CMLEHandler class file, comment out the lines to get the secret key file inputStream, and add the single line of code to get the jsonCredentials inputStream (see image below).



- Test app in debug mode to verify that you can connect with the secret key.



9.