

Secure the android application

There is no way to secure the android app 100%. Only way to protect your app is to make it no sense to spend too much time to reverse engineer it. For that we can use proguard. Other solutions are,

1. Keeping most important part of the code in C/C++
2. Using NDK to write the code in natively into .SO file

Enabling proguard obfuscation in the APP

- Go to build.gradle file of your app
- Enable the **minifyEnabled True**

```
android {  
    buildTypes {  
        release {  
            minifyEnabled true  
            proguardFiles getDefaultProguardFile('proguard-android.txt'),  
                'proguard-rules.pro'  
        }  
    }  
    ...  
}
```

Then build the application in release mode

Steps: -

1. On the menu bar click **Build > Generated Signed APK**
2. Click **Create New** to create a new key and keystore
3. On the New Keystore window, provide the informations
4. Then press **OK**
5. On the next window select the destination of the signed apk , build type(release) and click the **Finish**

Proguard runs only when you build the application in release mode. Proguard will replace the all names by meaningless character sequences, making it much harder to reverse engineer the code