

1. Membuat file apk installer Android Flutter.

{Tutorial bawaan ini diambil dari: <https://flutter.dev/docs/deployment/android> }

Pada project anda lakukan command:

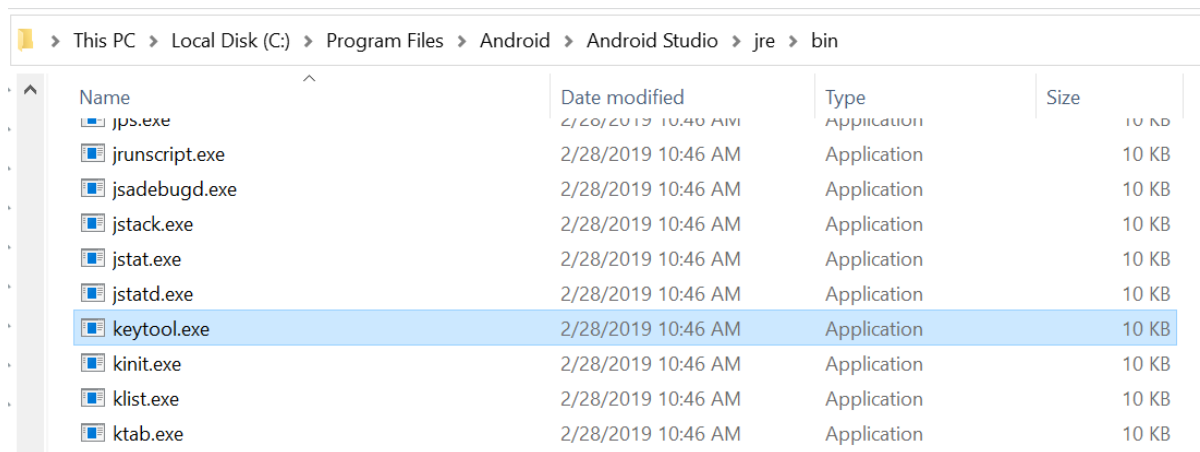
```
flutter doctor -v
```

untuk mengetahui letak **Keytool.exe** berada/terinstall

```
$ flutter doctor -v
[v] Flutter (Channel stable, 1.22.5, on Microsoft Windows [Version 10.0.18363.1256],
    locale en-US)
    • Flutter version 1.22.5 at C:\src\flutter
    • Framework revision 7891006299 (4 weeks ago), 2020-12-10 11:54:40 -0800
    • Engine revision ae90085a84
    • Dart version 2.10.4

[v] Android toolchain - develop for Android devices (Android SDK version 29.0.2)
    • Android SDK at C:\Users\admin\AppData\Local\Android\sdk
    • Platform android-29, build-tools 29.0.2
    • Java binary at: C:\Program Files\Android\Android Studio\jre\bin\java
```

pada PC biasanya pada : C:\Program Files\Android\Android Studio\jre\bin



This PC > Local Disk (C:) > Program Files > Android > Android Studio > jre > bin				
Name	Date modified	Type	Size	
jps.exe	2/28/2019 10:46 AM	Application	10 KB	
jrnscrip.exe	2/28/2019 10:46 AM	Application	10 KB	
jsadebugd.exe	2/28/2019 10:46 AM	Application	10 KB	
jstack.exe	2/28/2019 10:46 AM	Application	10 KB	
jstat.exe	2/28/2019 10:46 AM	Application	10 KB	
jstatd.exe	2/28/2019 10:46 AM	Application	10 KB	
keytool.exe	2/28/2019 10:46 AM	Application	10 KB	
kinit.exe	2/28/2019 10:46 AM	Application	10 KB	
klist.exe	2/28/2019 10:46 AM	Application	10 KB	
ktab.exe	2/28/2019 10:46 AM	Application	10 KB	

Kita akan mengeksekusi perintah ini dengan Keytool:

```
keytool -genkey -v -keystore c:\Users\USER_NAME\key.jks -storetype JKS -
keyalg RSA -keysize 2048 -validity 10000 -alias key
```

misal (menyesuaikan dengan directory anda):

```
keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS -
keyalg RSA -keysize 2048 -validity 10000 -alias key
```

Note: anda dapat juga mendaftarkan "C:\Program Files\Android\Android Studio\jre\bin" ke System Variable. Agar dapat diakses langsung lewat **cmd** tanpa masuk ke direktori.

Selanjutnya buat account dan password anda (jangan sampai lupa)

```
Command Prompt - keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS -keyalg RSA -keysize 2048 -validity 100...
C:\Users\admin>cd C:\Program Files\Android\Android Studio\jre\bin
C:\Program Files\Android\Android Studio\jre\bin>keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS
-keyalg RSA -keysize 2048 -validity 10000 -alias key
Enter keystore password:
```

```
Command Prompt - keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS -keyalg RSA -keysize 2048 -validity 100...
C:\Users\admin>cd C:\Program Files\Android\Android Studio\jre\bin
C:\Program Files\Android\Android Studio\jre\bin>keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS
-keyalg RSA -keysize 2048 -validity 10000 -alias key
Enter keystore password:
Keystore password is too short - must be at least 6 characters
Enter keystore password:
```

```
Command Prompt
C:\Users\admin>cd C:\Program Files\Android\Android Studio\jre\bin
C:\Program Files\Android\Android Studio\jre\bin>keytool -genkey -v -keystore c:\Users\admin\key.jks -storetype JKS
-keyalg RSA -keysize 2048 -validity 10000 -alias key
Enter keystore password:
Keystore password is too short - must be at least 6 characters
Enter keystore password:
Re-enter new password:
What is your first and last name?
[Unknown]: jerry
What is the name of your organizational unit?
[Unknown]: coders
What is the name of your organization?
[Unknown]: lecturer
What is the name of your City or Locality?
[Unknown]: jakarta
What is the name of your State or Province?
[Unknown]: jakartabarat
What is the two-letter country code for this unit?
[Unknown]: ID
Is CN=jerry, OU=coders, O=lecturer, L=jakarta, ST=jakartabarat, C=ID correct?
[no]: y

Generating 2,048 bit RSA key pair and self-signed certificate (SHA256withRSA) with a validity of 10,000 days
for: CN=jerry, OU=coders, O=lecturer, L=jakarta, ST=jakartabarat, C=ID
Enter key password for <key>
(RETURN if same as keystore password):
Re-enter new password:
[Storing c:\Users\admin\key.jks]

C:\Program Files\Android\Android Studio\jre\bin>
```

Buatlah file pada source **android** seperti berikut: `..\android\key.properties`

Kemudian pada file **key.properties** ketikkan:

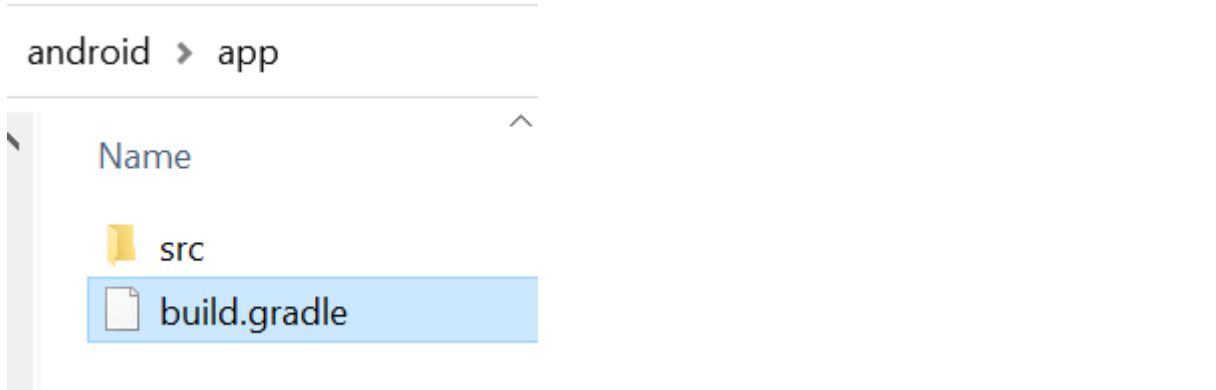
```
storePassword=<password yang tadi teman teman masukan>
```

```
keyPassword=<password yang tadi teman teman masukan>
keyAlias=key
storeFile=<Lokasi file keystore , Misal /Users/<username>/key.jks>
```

misalnya:

```
storePassword=admin123
keyPassword=admin123
keyAlias=key
storeFile=c:\Users\admin\key.jks
```

selanjutnya pada ..\android\app\build.gradle



Bukalah file **build.gradle** dan edit textnya:

Sebelum coding berikut:

```
android {
    ...
}
```

Tambahkan:

```
def keystoreProperties = new Properties()
def keystorePropertiesFile = rootProject.file('key.properties')
if (keystorePropertiesFile.exists()) {
    keystoreProperties.load(new FileInputStream(keystorePropertiesFile))
}

android {
    ...
}
```

Kemudian pada coding berikut:

```
buildTypes {
    release {
        // TODO: Add your own signing config for the release build.
        // Signing with the debug keys for now,
        // so `flutter run --release` works.
        signingConfig signingConfigs.debug
    }
}
```

Diatasnya ambahkan:

```
signingConfigs {  
    release {  
        keyAlias keystoreProperties['keyAlias']  
        keyPassword keystoreProperties['keyPassword']  
        storeFile keystoreProperties['storeFile'] ? file(keystoreProperties['storeFile']) : null  
        storePassword keystoreProperties['storePassword']  
    }  
}  
  
buildTypes {  
    release {  
        // TODO: Add your own signing config for the release build.  
        // Signing with the debug keys for now, so `flutter run --release` works.  
        signingConfig signingConfigs.debug  
    }  
}
```

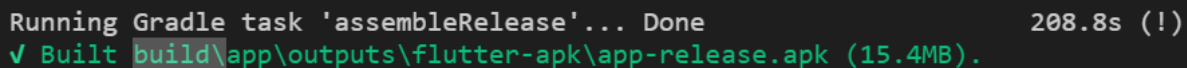
Setelah selesai setup account dan password, lakukan perintah pada terminal command flutter:

Flutter Clean

...Kemudian dilanjutkan

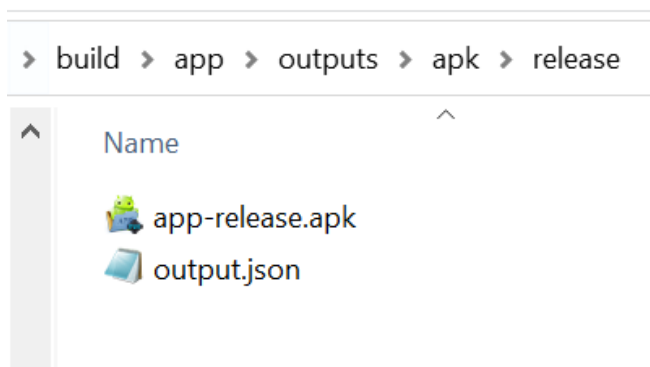
Flutter build apk

Hasil pada Terminal Command Flutter:

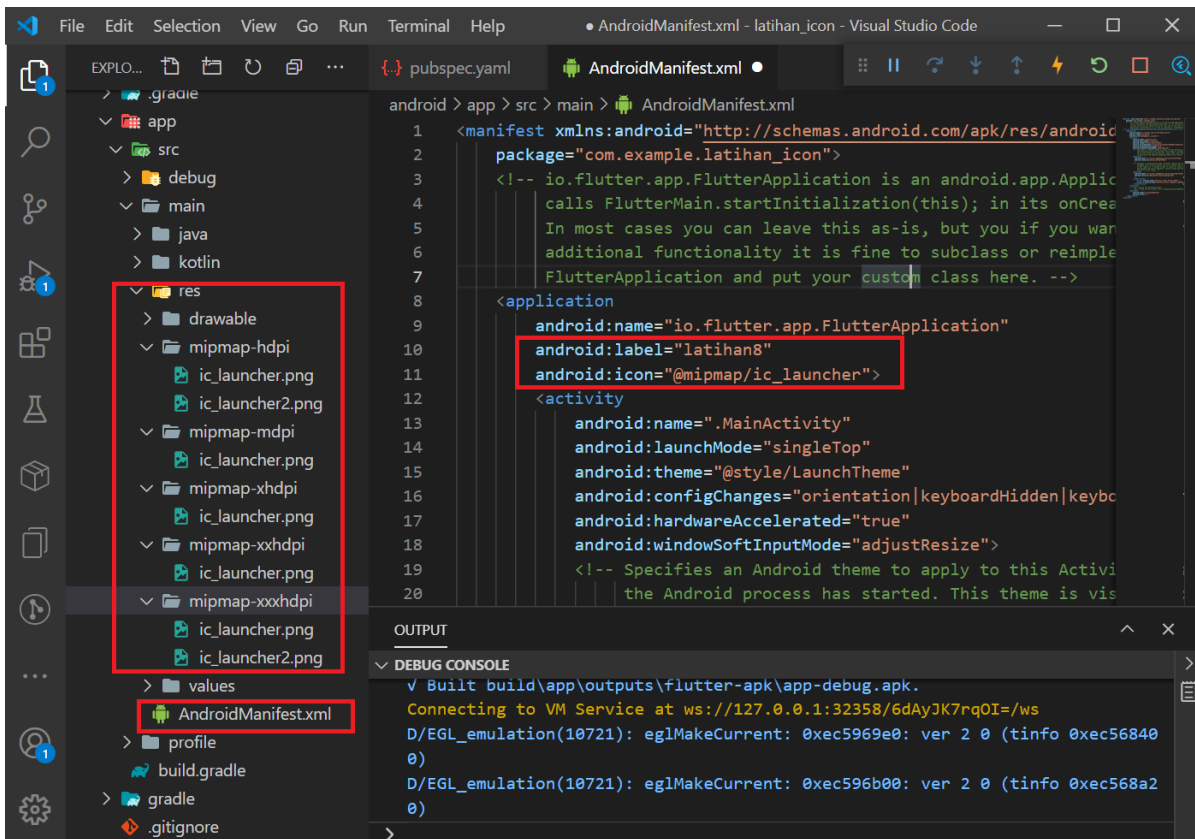
A terminal window with a dark background. The text shows the completion of a Gradle task for assembling the release APK. It indicates the task is done, took 208.8 seconds, and the APK file has been built successfully, with a size of 15.4MB.

```
Running Gradle task 'assembleRelease'... Done                208.8s (!)  
✓ Built build\app\outputs\flutter-apk\app-release.apk (15.4MB).
```

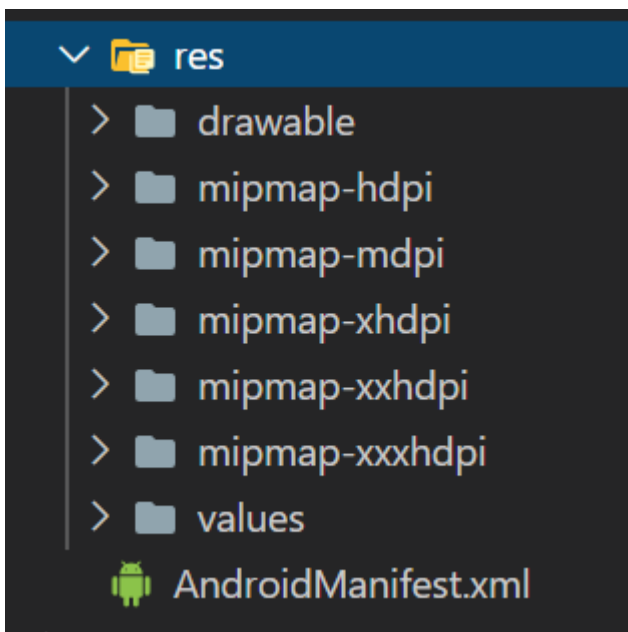
Lanjutkan dengan pengecekan apk hasil generate tadi pada direktory android anda: build\app\outputs\apk\release



2. Merubah Icon aplikasi flutter saat terinstal pada Android.



Pada direktori: `.. \android\app\src\main\res`

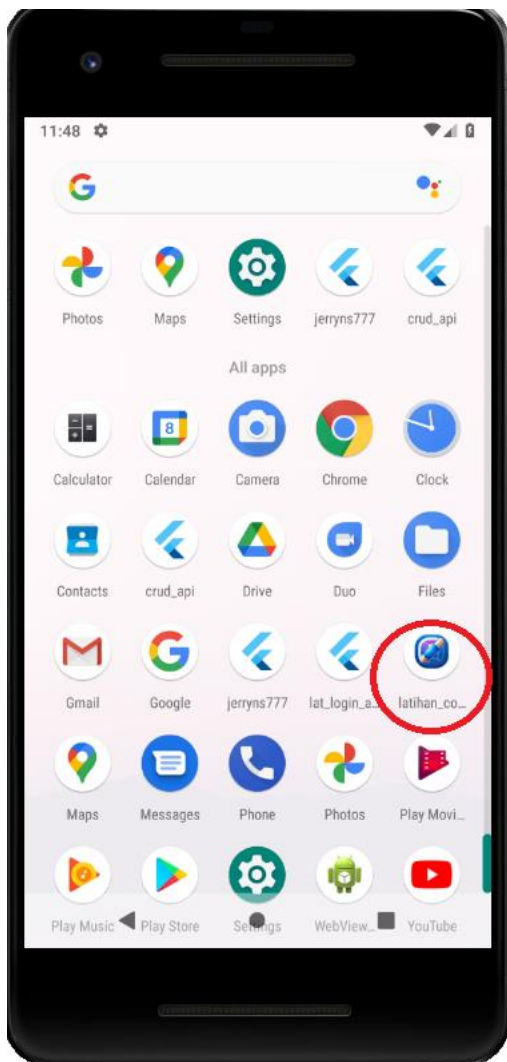


Pada folder res terdapat folder sebagai berikut:

- `mipmap-hdpi` -> berisi icon dengan ekstensi png dengan ukuran 72x72
- `mipmap-mdpi` -> berisi icon dengan ekstensi png dengan ukuran 48x48
- `mipmap-xhdpi` -> berisi icon dengan ekstensi png dengan ukuran 96x96
- `mipmap-xxhdpi` -> berisi icon dengan ekstensi png dengan ukuran 144x144

mipmap-xxxhdpi -> berisi icon dengan extensi png dengan ukuran 192x192

Tiap folder tersebut harus kita ubah dengan icon yang hendak kita gunakan. Sistem akan menyesuaikan dengan ukuran yang digunakan tergantung pada *emulator* atau *android* yang kita gunakan untuk instal.



Referensi:

<https://flutter.dev/docs/deployment/android>

<https://dev.to/ihwanid/cara-membuat-apk-aab-di-flutter-8bf>

<https://dsyech.blogspot.com/2019/03/aplikasi-android-flutter-apk-release.html>