Lab 1: Signing

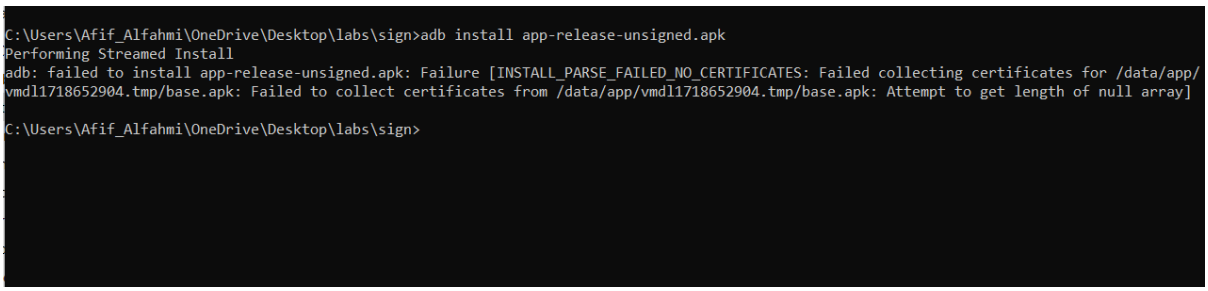
Overview

In this lab, we are going to create a certificate using the keytool and use this certificate to sign the APK file using apksigner because when you build the release version of an APK file from Android Studio it will not be signed by default so it can't be installed on an Android device

Steps

1. Open a new terminal and navigate to labs > sign folder
    - you will find APk File which is app-release-unsigned.apk you can use it for this lab or open the Hack project in Android Studio and switch to the signing branch
      `git checkout signing`
      and build a new release app

2. Install the APK File using ADB
    - `adb install app-release-unsigned.apk`
    - you will see an error like this

      because the app is not signed

3. Create a certificate using the keytool
    - `keytool -genkey -v -keystore certificate.jks -dname "CN=Afif, OU=learning, O=afif-learning, L=Makkah, C=saudi" -keypass Test1234 -storepass Test1234 -alias hack -keyalg RSA -keysize 2048 -validity 10000`

4. Sign the apk using apksigner
    - `apksigner sign --v2-signing-enabled --ks certificate.jks --ks-key-alias hack --ks-pass pass:Test1234 --key-pass pass:Test1234 app-release-unsigned.apk`

5. Install the APK using ADB
    - make sure to delete the previous version of the hack app because it is signed by Android Studio with a different certificate and install the APK

    - `adb install app-release-unsigned.apk`

      now the APK will be installed successfully, I recommend you rename it to app-release.apk

Resources

https://developer.android.com/tools/apksigner