**PRACTICAL # 15**

**OBJECT:**

Signing and Publishing Application

**THEORY:**

To distribute an application through Google Play, a developer account must be created, which requires a one-time fee of $25 USD. All applications need to be signed with a cryptographic key. Maximum size for an APK published on Google Play is 100MB. If an application exceeds that size, Google Play will allow extra assets to be delivered through APK Expansion Files. Android Expansion files permit the APK to have 2 additional files, each of them up to 2GB in size.

Registering Account:

1. Visit Google Play Developer Console.

2. Enter basic information about your developer identity.

3. Read and accept the Developer Distribution Agreement.

4. Pay the $25 USD registration fee.

5. Confirm verification by e-mail.

6. After the account has been created, it is possible to publish applications using Google Play.

Publishing Checklist:

1. Test your app.

2. Create an APK package and digitally sign your application.

3. Prepare promotional materials.

4. Publish your app to Google Play.

An Application Package File (.apk) is similar to a zip file. This file contains the application, the manifest file, and all associated resources, such as image files, music, and other related content. Apps must be digitally signed with a certificate that identifies the author and establishes trues relationships between applications

Generating Signed APK:

In Android Studio, Choose Build in the menu and select ‘Generate Signed APK’ (Figure 1)

Promotional Materials:

Google Play requires images from your app to assist with marketing. Your image should standout.

Use screen shots of your application. Application icon size should be 512 X 512 pixels, saved in a PNG format.

2 screen shots are required:

- 480 X 320, 800 X 480, or 854 X 480 PNG files

- Up to 8 screen shots can be uploaded

- Videos can be used to demo the app » Should be between 30 seconds and 2 minutes

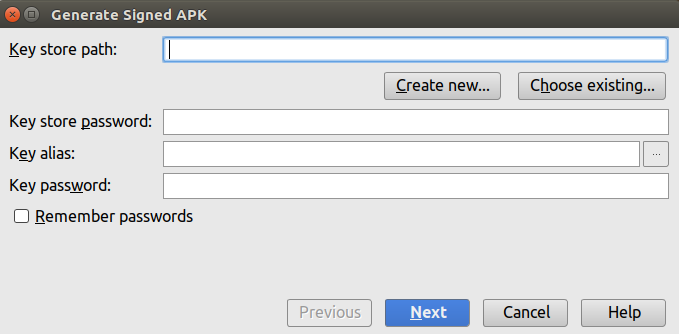


Figure 1: Generating signed APK in Android Studio

Launcher Icons:

A launcher icon represents an application. It should be a 32-bit PNG with an alpha channel for transparency. An application should have icons for all of the generalized screen densities. Launcher icons are first things that a user will see of applications on Google Play, so make them appealing and meaningful.

Promo – Description:

The description provides a quick overview of the app and what this application does. It include features the app provides, motivate users to download the app.

Google Play Account:

Register for a Google Play Developer Account at

<http://play.google.com/apps/publish>

You will get a key to sign your app.

To upload your application, login with your developer account and follow the upload system to upload the signed apk and other relevant fields including screenshots and description.

**ACTIVITIES**

**Activity 1**

Create a simple application of your choice. Generate all the required materials for publishing the application, including a signed APK, application icon, screenshots, description.

Register a Google developer account and publish your application if possible.

**REVIEW QUESTIONS**

1. What are the required steps to publish your application online?
2. How do you register your developer account yo publish your application?
3. Why do your need to sign your application apk before publishing the application?
4. What changes should you make in promotional material if you update your application with more features?