



Lambda

Publishing



# Upon completion of this module, a student will be able to

- prepare app for release
- version app
- build apk file
- sign app
- set up account
- create a store listing
- upload app

# Assignment

- Task
  - Pick an app that you have worked on and publish it to a closed alpha track. Submit the opt in test link in your README.
- Repo
  -
- Submission
  - Fork on github and submit pull request



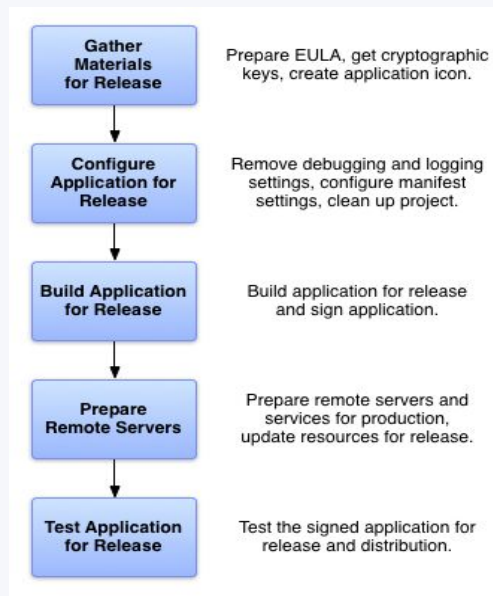
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A Student Can  
prepare app for release



# Preparing an App for Release

- Test Thoroughly
- Prepare Code
- Test again
- Prepare External Resources
- Distribute for internal testing





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A Student Can  
properly use versioning



# Versioning

- Version Code - integer which must increase for updates
- Version Name - just a string shown to users

```
android {  
    compileSdkVersion 28  
    defaultConfig {  
        applicationId  
        "com.lambdaschool.xkcd_comics"  
        minSdkVersion 21  
        targetSdkVersion 28  
        versionCode 1  
        versionName "1.0"  
        ...  
    }  
    ...  
}
```



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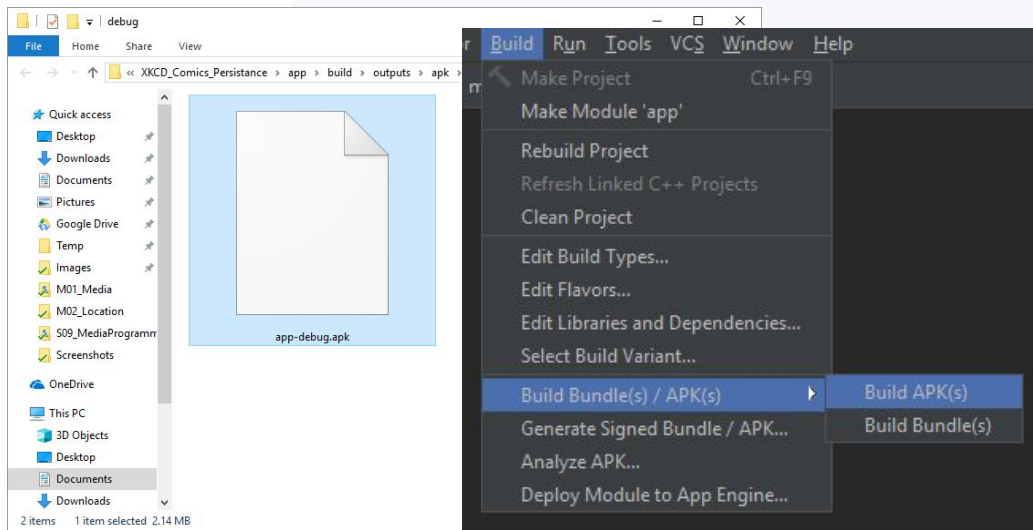
A Student Can  
build an app apk file





# Build an apk File

- Manually distributable
- Install on test devices
  - Sideload Apps





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A Student Can

sign an app for secure distribution



# App Signing

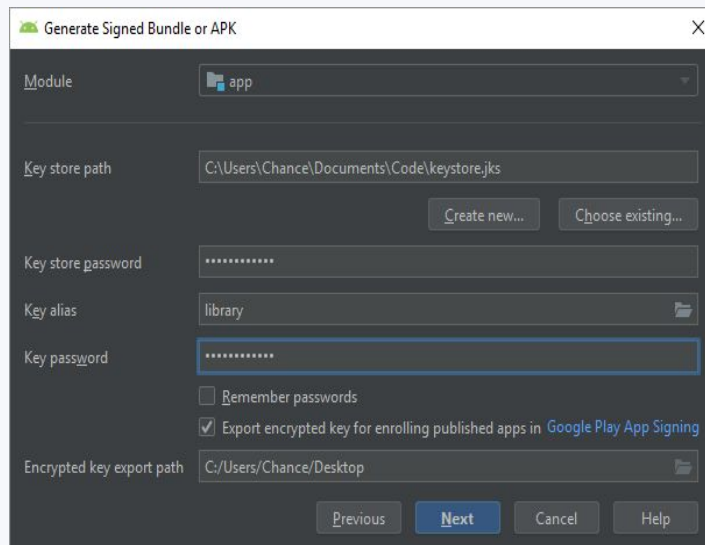
- Keystore / Key
  - apk distribution
- Google Play Signing
  - Bundle distribution



<https://support.google.com/googleplay/android-developer/answer/7384423>

# Generate Signed App

- Build > Generate Signed Bundle / APK
- Select Keystore
- Provide Passwords
- Save key for Google Play App Signing





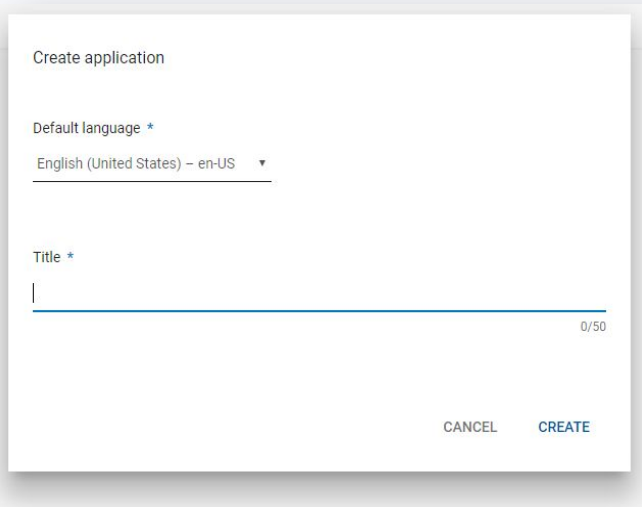
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A Student Can  
create a store listing



# Creating a Store Listing

- Create a developer account
- Navigate to <https://play.google.com/apps/publish>
- Click “Create Application”



The screenshot shows a 'Create application' dialog box. It has a title 'Create application' at the top. Below it is a 'Default language \*' section with a dropdown menu showing 'English (United States) – en-US'. Below that is a 'Title \*' section with a text input field and a character count '0/50'. At the bottom right are two buttons: 'CANCEL' and 'CREATE'.

<https://developer.android.com/distribute/best-practices/launch/store-listing>

# Descriptions

The screenshot shows the Google Play Console interface for the 'Test Application' draft. The left sidebar lists navigation options: All applications, Dashboard, App releases, Android Instant Apps, Artifact library, Device catalog, App signing, Store listing (selected), Content rating, Pricing & distribution, In-app products, Translation service, Services & APIs, and Optimization tips. The main content area is titled 'Product details' and shows the 'ENGLISH (UNITED STATES) - en-US' locale. It includes a 'Manage translations' dropdown and a note: 'Fields marked with \* need to be filled before publishing.' The form fields are: 'Title' (filled with 'Test Application', 16/50 characters), 'Short description' (marked with an asterisk, 0/80 characters), and 'Full description' (marked with an asterisk, 0/4000 characters). Below the full description field, there is a note about the Metadata policy and a link to learn more about graphic assets. The 'Graphic Assets' section is also visible, with a note about localized graphics and a link to learn more. The 'Screenshots' section is partially visible at the bottom. A 'SAVE DRAFT' button is at the bottom right.

Google Play Console

Store listing

Test Application  
Draft

Product details

ENGLISH (UNITED STATES) - en-US Manage translations

Fields marked with \* need to be filled before publishing.

Title \*  
English (United States) - en-US Test Application 16/50

Short description \*  
English (United States) - en-US 0/80

Full description \*  
English (United States) - en-US 0/4000

Please check out our [Metadata policy](#) to avoid some common violations related to app metadata. Also, please make sure to review all the other [program policies](#) before you submit your apps.

If your app or store listing is [eligible for advance notice](#) to the Google Play App Review team, contact us prior to publishing.

Graphic Assets

If you haven't added localized graphics for each language, graphics for your default language will be used. [Learn more about graphic assets.](#)

Screenshots \*

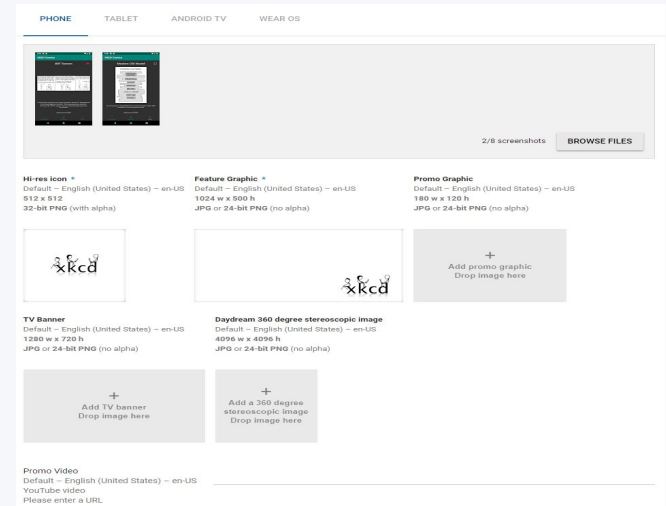
Default - English (United States) - en-US  
.JPG or 24-bit PNG (no alpha). Min length for any side: 320px. Max length for any side: 3840px.

SAVE DRAFT

- Title
- Short Description
- Full Description

## Graphics Assets

1. Screenshots
  - a. Taken on device or in emulator
2. High Res Icon
  - a. Can generate in androidassetstudio
3. Feature Graphic
  - a. Generated Independently
4. Additional Graphics and Video




<https://developer.android.com/distribute/best-practices/launch/feature-graphic>



# Graphics Assets


- Screenshots
  - Taken on device or in emulator
- High Res Icon
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PHONE    TABLET    ANDROID TV    WEAR OS

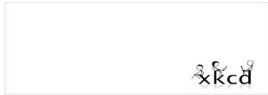


2/8 screenshots    [BROWSE FILES](#)

**Hi-res icon \***  
Default – English (United States) – en-US  
512 x 512  
32-bit PNG (with alpha)



**Feature Graphic \***  
Default – English (United States) – en-US  
1024 w x 500 h  
JPG or 24-bit PNG (no alpha)



**Promo Graphic**  
Default – English (United States) – en-US  
180 w x 120 h  
JPG or 24-bit PNG (no alpha)

+  
Add promo graphic  
Drop image here

**TV Banner**  
Default – English (United States) – en-US  
1280 w x 720 h  
JPG or 24-bit PNG (no alpha)

+  
Add TV banner  
Drop image here

**Daydream 360 degree stereoscopic image**  
Default – English (United States) – en-US  
4096 w x 4096 h  
JPG or 24-bit PNG (no alpha)

+  
Add a 360 degree  
stereoscopic image  
Drop image here

**Promo Video**  
Default – English (United States) – en-US  
YouTube video  
Please enter a URL

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# Categorization and Content Rating

Application Type and Category

Content Rating

Questionnaire to determine rating



<https://support.google.com/googleplay/android-developer/answer/188189>

# Pricing and Distribution

- Set price
- Set availability
- Additional details

<https://support.google.com/googleplay/android-developer/answer/188189>



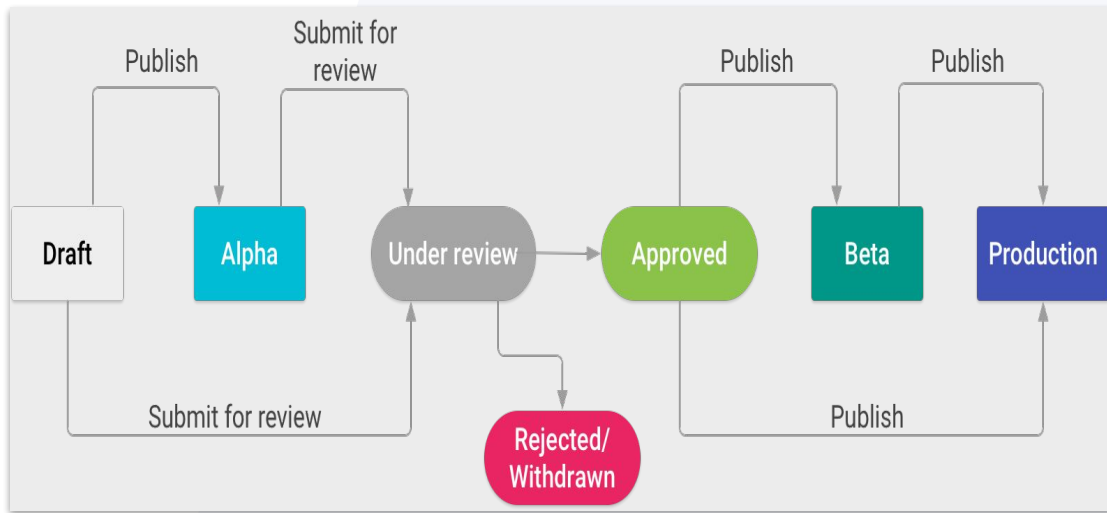
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A Student Can  
create a release



# Release Tracks

- Internal Test
- Alpha
- Beta
- Production



<https://developers.google.com/android-publisher/tracks>

# Specify Testers

- Select Track > Manage
- Specify users and how others can opt in
- List of emails or opt in link

# Create Release

- Select and upload apk or bundle (aab) file
- Give release a name
  - Displayed to user
- Release Notes
- Save > Review

<https://support.google.com/googleplay/android-developer/answer/188189>

# Start Rollout

- Click Start Rollout
- Create Release
- Release to Alpha

The screenshot shows the 'Internal test' page in the Google Play Console. At the top, there's a back arrow and the text 'Internal test', and a 'CREATE RELEASE' button. Below this is a 'Manage testers' section with a dropdown menu set to 'Internal test'. The main content area shows a release icon, 'Release: 0.01' with an 'Edit' link, and a 'RELEASE TO ALPHA' button. Below this is a 'Rollout history' section showing 'seconds ago: Full rollout.' and a 'What's new in this release?' section with a note about adding release notes and a link to 'Add release notes'. At the bottom, there's an 'Android App Bundles and APKs' section with an 'Expand all' link. A table lists the bundles, showing one bundle added. The table has columns for Type, Version code, Uploaded, APK download size, and Installs on active devices.

Type	Version code	Uploaded	APK download size	Installs on active devices
1 app bundle added				
Android App Bundle	1	16 minutes ago	1.37 - 1.39 MB	No data