

1) Symmetric encryption is a form of computerized cryptography using a singular encryption key to guise an electronic message. Its data conversion uses a mathematical algorithm along with a secret key, which results in the inability to make sense out of a message. Symmetric encryption is a two-way algorithm because the mathematical algorithm is reversed when decrypting the message along with using the same secret key.

2) Asymmetric cryptography, also known as public key cryptography, uses public and private keys to encrypt and decrypt data. The keys are simply large numbers that have been paired together but are not identical (asymmetric). One key in the pair can be shared with everyone; it is called the public key. The other key in the pair is kept secret; it is called the private key. Either of the keys can be used to encrypt a message; the opposite key from the one used to encrypt the message is used for decryption.

3) The Android Keystore system lets you store cryptographic keys in a container to make it more difficult to extract from the device.

4) Build Type refers to build and packaging settings like signing configuration for a project. For example, debug and release build types. The debug will use android debug certificate for packaging the APK file. While, release build type will use user-defined release certificate for signing and packaging the APK.

A flavor is used to specify custom features, minimum and target API levels, device and API requirements like layout, drawable and custom code (for example, if production code is slightly different than development code).

The combination of Build Type and Flavor is known as Build Variant. For example, for above build types (debug and release) and product flavours (free and paid versions), build variants can be freeDebug, freeRelease, paidDebug, paidRelease.

5)

ProGuard will remove the unused Java code. It helps to significantly reduce the code foot prints. Here is the thing to be taken care of, we must test the app properly after applying proguard.

Use Split APK: This allows you to create the apk for specific density and ABIs. Hence, huge reduction in the apk size.

Reduce resources where ever possible. Using shrinkResources attribute in the Gradle will remove all the resources which are not being used anywhere in the project.

Remove the localized resources which are not needed by using resConfigs . As all the support libraries may have localized folders for the other languages which we don't need.

Using Vector Drawable is one of the best way to reduce the size significantly.

6)

App Bundles are a publishing format, whereas APK (Android application PackAge) is the packaging format which eventually will be installed on device.

App Bundles use [bundletool](#) to create a set of APK. (.apks) This can be extracted and the base and configuration splits as well as potential dynamic feature modules can be deployed to a device.

The dependencies can look something like this

7)

Continuous Integration (CI) is the process of automating the build and testing of code every time a team member commits changes to version control. CI encourages

developers to share their code and unit tests by merging their changes into a shared version control repository after every small task completion.

8) Both are unit testing framework, but Powermock has consideration for static object