**Generating an APK file in Android Studio**

1. **Open Your Project in Android Studio**:
   * Start by opening your project in Android Studio.
2. **Configure Your App for Release**:
   * You should also review and update the app's manifest file (**AndroidManifest.xml**). Ensure that all the necessary permissions and features are declared.
3. **Generate a Signed APK**:
   * Go to the top menu in Android Studio and click **Build** > **Generate Signed Bundle / APK**.
   * Choose **APK** instead of **Android App Bundle** in the pop-up window.
4. **Create a Keystore**:
   * If you haven’t already created a keystore, you'll need to create one now. A keystore is a binary file that contains a set of private keys.
   * Click on **Create new** if you need to create a new keystore.
   * Fill in the required fields (Key store path, Password, Alias, Password, Validity years, and Certificate details). Remember the keystore information, as you’ll need it every time you sign your app.
5. **Select Build Variants**:
   * Choose the build variant for which you want to generate an APK (usually the **release** variant).
6. **Sign the APK**:
   * Enter the details of the keystore you created or an existing keystore. This includes the Keystore path, Keystore password, Key alias, and Key password.
7. **Set APK Destination and Build Type**:
   * Specify the destination folder where the APK will be saved.
   * Choose the build type (**release** is common for final app deployment).
8. **Generate the APK**:
   * Click on **Finish**. Android Studio will then compile your code and generate the APK. This process may take a few minutes.
9. **Locate the APK**:
   * After the build process is complete, you can find the APK in the specified destination folder.
10. **Test the APK**:
    * It's recommended to test the generated APK on actual devices before distributing it.

**Submitting on Canvas**

For your assignment submissions, you must submit both the signed APK file and the link to the class repository containing your code. Before proceeding with the submission, make sure all your final code is complete, thoroughly tested, and pushed to your repository on GitHub. This ensures that the version of the code in the repository matches the APK you're submitting, which is essential for accurate evaluation and grading.