Steps to Build Android APK for SkillKonnect App

Follow these steps to build your Fyne app into an Android APK. This assumes you're on Linux with Go installed.

Prerequisites

- Go 1.24+ installed.
- Internet connection for downloads.
- About 2-3 GB free space for Android SDK.

Step-by-Step Build Process

1. **Install Java (required for Android SDK tools)**
   The Android build tools are Java-based, so we need JDK 17.

   ```
   sudo apt update && sudo apt install -y openjdk-17-jdk
   ```

2. **Set up Android SDK directory and download command line tools**

   ```
   mkdir -p ~/android-sdk
   wget https://dl.google.com/android/repository/commandlinetools-linux-11076708_latest.zip -O ~/android-sdk/cmdline-tools.zip
   cd ~/android-sdk
   unzip cmdline-tools.zip
   mv cmdline-tools cmdline-tools-temp
   mkdir cmdline-tools
   mv cmdline-tools-temp cmdline-tools/latest
   ```

3. **Set environment variables**
   Add these to your shell (or ~/.bashrc for permanence):

   ```
   export JAVA_HOME=/usr/lib/jvm/java-17-openjdk-amd64
   export ANDROID_HOME=~/android-sdk
   export ANDROID_NDK_HOME=$ANDROID_HOME/ndk/26.1.10909125
   export PATH=$PATH:$ANDROID_HOME/cmdline-tools/latest/bin:$ANDROID_HOME/platform-tools:$ANDROID_HOME/build-tools/34.0.0
   ```

4. **Accept Android SDK licenses**

   ```
   yes | sdkmanager --licenses
   ```

5. **Install Android SDK components**

   ```
   sdkmanager "platform-tools" "platforms;android-34" "build-tools;34.0.0" "ndk;26.1.10909125"
   ```

   This downloads ~1-2 GB; it may take time.

6. **Install the updated Fyne CLI tool**
   The old fyne CLI is deprecated.

   ```
   go install fyne.io/tools/cmd/fyne@latest
   export PATH=$PATH:~/go/bin  # Add fyne to PATH
   ```

7. **Create an app icon (required for packaging)**
   Fyne needs a PNG icon. Create a 512x512 PNG and save as `Icon.png` in your project root.

8. **Build the APK**
   In your project directory:

   ```
   fyne package --os android --app-id com.skillkonnect.app
   ```

   This generates `skillKonnectApp.apk` (~116MB).

Notes

- The app ID `com.skillkonnect.app` is unique—change it if needed.

- If you skip the icon, packaging fails.
- For iOS, you'd need macOS + Xcode instead.
- Test on your phone by transferring the APK and installing it.