# Prerequisites for Both Stores

1. **Flutter Setup**: Ensure you have the latest version of Flutter SDK installed and that your app is production-ready.
2. **App Icon**: Design a 1024x1024 app icon and add it to both Android and iOS versions.
3. **App Name and Package**: Choose a unique app name and package identifier (com.example.myapp).
4. **App Store Accounts**:
   * **Google Play**: A Google Play Developer account ($25 one-time fee).
   * **App Store**: An Apple Developer account ($99/year).
5. **Privacy Policy and Terms**: You need a privacy policy for both stores (required for data collection).
6. **Screenshots**: Prepare screenshots for different device sizes (Phone, Tablet, etc.).

# Google Play Store Deployment

## Generate Android APK / AAB

* **Set up app/build.gradle:**
  + Open the android/app/build.gradle file and set your applicationId to match the package identifier.
  + Ensure minSdkVersion is set to 19 or higher.
* **Generate a Signed APK/AAB:** Run the following commands to generate a signed APK or AAB (Android App Bundle, recommended for Play Store):

flutter build apk --release

flutter build appbundle –release

## **Set Up Google Play Console**

* Go to Google Play Console and sign in with your Google Developer account.
* **Create a new app**:
  + Navigate to "All Apps" > "Create App."
  + Fill in the app name, language, app type (App or Game), free or paid.
  + Complete app details (description, privacy policy URL, etc.).

## Upload App Bundle (AAB) or APK

* **Set Up Internal Testing**:
  + In the Google Play Console, go to "Testing" > "Internal testing."
  + Upload the generated AAB/APK from the previous step.
* **Prepare Release**:
  + Once tested, navigate to "Production" > "Create new release."
  + Upload your AAB/APK, provide release notes, and save the release.

## Add Store Listing and Content Rating

* **Store Listing**:
  + Add app description, short description, screenshots, app icon, and feature graphic.
  + Provide categorized information about the app (genre, content rating).
* **Content Rating**:
  + Go to "App content" > "Content rating" and complete the questionnaire to get a rating.
* **App Pricing**:
  + Set whether your app is free or paid. Once set to "Free," you can’t switch it to "Paid."

## Final Review and Submit

* Complete the pre-launch checklist in the Play Console (policies, ads, etc.).
* Click "Submit for Review."
* Google reviews your app and, if approved, it will go live.

# Apple App Store Deployment

## Prepare iOS Build

* **Set up ios/Runner.xcodeproj:**
  + Open your Flutter project in Xcode by navigating to ios/Runner.xcworkspace.
  + Set the "Bundle Identifier" in the General tab to match your package identifier (com.example.myapp).
  + Ensure you have an app icon added under Assets.xcassets.

## Code Signing & Provisioning Profile

* **Apple Developer Account**:
  + Enroll in the Apple Developer Program.
  + In Xcode, set up your development team and code signing (under Signing & Capabilities).
  + Xcode will automatically create the provisioning profiles.

## Archive and Distribute

* **Build and Archive**:
  + In Xcode, select the "Runner" project, set the scheme to "Release," and select a physical iOS device.
  + Go to **Product** > **Archive**.
* **Upload to App Store**:
  + After archiving, Xcode will open the "Organizer" window.
  + Choose the archived build and click "Distribute App" > "App Store Connect."
  + Follow the instructions to upload the build.

## Set Up App Store Connect

* **Create a New App**:
  + Go to [App Store Connect](https://appstoreconnect.apple.com/), and create a new app under "My Apps."
  + Enter the app name, SKU, and select your app's primary language.
  + Choose the platform (iOS), and bundle ID (same as Xcode’s Bundle Identifier).

## Add Store Listing

* **Store Information**:
  + Add app name, subtitle, description, keywords, support URL, and marketing URL.
* **App Screenshots**:
  + Prepare screenshots for iPhone (and iPad, if applicable) across multiple screen sizes (4.7”, 5.5”, 6.5”, 12.9” for iPad).

## Fill in App Information

* **App Version Info**:
  + Specify the app’s version, description, and what's new in the version.
* **Submit for Review**:
  + Go to "App Review" and submit the build uploaded from Xcode for review.
  + Apple reviews can take a few days or longer.

## Compliance Information and Privacy

* Provide export compliance details (whether your app uses encryption) and other data privacy details as required.
* **TestFlight**:
  + You can invite testers via TestFlight for beta testing before the final release.