Module 11: App Deployment and Publishing

1. App Release Process for iOS and Android

iOS (App Store)
1. Set the app version and build number in both *pubspec.yaml* and Xcode.
2. Switch the Flutter project to release mode.
3. Create an archive build using Xcode's *Product → Archive* option.
4. Upload the archived build to App Store Connect.
5. Fill in the app information, add screenshots, and complete all metadata fields.
6. Submit the build for Apple's review process.
7. After approval, make the build available to users on the App Store.

Android (Google Play)
1. Update the version name and build number in *pubspec.yaml*.
2. Generate a release keystore and configure signing for your app.
3. Build the Google Play–required AAB file.
4. Upload the AAB package to the Google Play Console.
5. Add store listing details, screenshots, and complete the content rating form.
6. Submit the app for Google's review.
7. Publish the app after it is approved.

2. Steps to Generate App Bundles and APKs in Flutter

Android

• **Generate AAB (for Google Play):**
  flutter build appbundle --release
  Output: build/app/outputs/bundle/release/app-release.aab

• **Generate APK (for testing/manual installation):**
  flutter build apk --release
  Output: build/app/outputs/flutter-apk/app-release.apk

iOS

• Run:
  flutter build ios --release

• Open the project in Xcode and use *Product → Archive* to create the final build ready for upload to App Store Connect.

3. Best Practices for App Submission

App Store (iOS)
• Test thoroughly on physical devices before submission.
• Provide clear and accurate screenshots and descriptions.
• Ensure the app meets Apple's App Store guidelines.
• Use proper signing certificates and correct bundle identifiers.
• Keep version and build numbers consistent across files.

Google Play (Android)
• Use AAB for app publishing instead of APK.
• Declare correct permissions and include a valid privacy policy.
• Complete the content rating survey carefully.
• Upload high-quality screenshots, app icon, and store listing assets.
• Test on different Android devices and screen sizes before uploading.