Key Points	Notes
	What is FlutterFire Plugins? a. FlutterFire contains a set of plugins which connect your Flutter application to Firebase. These plugins cover all functionalities of a Firebase that you can use in your Flutter Project.
	b. Below are the commonly used FlutterFire plugins for Flutter
	Project: i. flutter_auth – Flutter plugin for Firebase Auth, enabling Android and iOS authentication using passwords, phone numbers, and identity providers like Google, Facebook and Twitter.
	ii. cloud_firestore – Flutter plugin for Firebase Cloud Firestore, a cloud-hosted, noSQL database with live synchronization and offline support on Android and iOS.
	iii. firebase_messaging – Flutter plugin for Firebase Cloud Messaging, a cross-platform messaging solution that lets you reliably deliver messages on Android and iOS.
	iv. firebase_storage - Flutter plugin for Firebase Cloud Storage, a powerful, simple, and cost-effective object storage service for Android and iOS.
	v. firebase_core - Flutter plugin for Firebase Core, enabling connecting to multiple Firebase apps.
	vi. Complete list of FlutterFire plugins available at https://firebase.flutter.dev/
	Summary

Key Points Notes 2. Adding FlutterFire Plugin Dependency to Flutter App a. Once you have decided to use a list of FlutterFire plugins in the pub.dev, you need to add package/plugin dependency in your pubspec.yaml file of your project. This dependency information is available under **Installing section** of the package page. Example: dependencies: flutter: sdk: flutter firebase auth: ^0.18.4+1 firebase_core: ^0.5.3 cloud_firestore: ^0.14.4 b. Once the dependency information already added and saved in pubspec.yaml file, you can start download the package or plugin into your Flutter project. i. Flutter CLI 1. flutter pub get ii. MS VS Code 1. Click at pubspec.yaml file and click at download icon on the top right menu. iii. Android Studio 1. Click at pubspec.yaml file and click at Pub get menu on the top right menu. 2. Update minSDKVersion (Android) a. Firebase plugins for Flutter requires a higher Android version than the default version. Thus, you need to update your default version to 21 by updating your defaultConfig section android/app/build.gradle file. defaultConfig { minSdkVersion 21 # the default is 16 } Summary

Key Points Notes 3. Create Firebase Project a. Go to https://console.firebase.google.com and login using your Gmail account. Add a new Firebase project by clicking the Add project button. b. Add project name, disable Google Analytics and click Create Project button. c. Once a Firebase project has been created to can add it to both Android and iOS or just specific platform. To add click at the Android icon under Get started by adding Firebase to your app page. d. To register your app you need to locate your **Android Package** Name under android/app/src/main/AndroidManifest.xml file. Your Android Package Name will be something like com.example.com.example.com.example. **Debug signing certificate SHA-1** options. e. Click **Register App** button and download google-services. json file to your machine and move the file to android/app directory. f. You need to map google-services ison in your project to be recognized by making changes to these files: i. android/app/build.gradle (place it at the last line) apply plugin: 'com.google.gms.google-services' ii. android/build.gradle buildscript { repositories { // ... dependencies { // ... classpath 'com.google.gms:googleservices:4.3.3' // new } Summary

Key Points	Notes
	g. Detailed instructions available at https://codelabs.developers.google.com/codelabs/flutter-firebase#0
	4. FlutterFire examples a. Firebase Authentication - https://medium.com/firebase-developers/dive-into-firebase-auth-on-flutter-email-and-link-sign-in-e51603eb08f8
	 Firebase Cloud Firestore - https://medium.com/flutterdevs/using-firebase-firestore-in-flutter-b0ea2c62bc7
	 5. References b. Windmill, E. (2020). Flutter in Action (1st Ed.). USA: Manning Publications.
	c. Flutter Official Documentation. Retrieved on 1 December 2020 from https://flutter.dev/docs
	d. Flutter Official Documentation: Using Packages. Retrieved on 29 December 2020 from https://flutter.dev/docs/development/packages-and-plugins/using-packages
	Summary