

Introduction to Mobile Development: Practical Considerations

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Platform and Language Consideration

- Native
 - Android: Kotlin/Java and C
 - iOS: Swift/Objective-C
- Cross-platforms
 - Ionic and Ionic Capacitor
 - Flutter
 - React Native
 - ...

App Consideration

- Standalone app vs. a system with mobile app
 - Are you building a standalone app?
 - Are you building a system?
 - A mobile app can be part of a large system

App Design Consideration

- Application can be horizontally decomposed into a few parts.
 - Front end, back end, and database
 - Front end: part of a software system that users directly interact with, your mobile app itself
 - Back end: part of a software system that handles the business logic, data processing, and storage
 - Database: stores all the data required by the app.
- How do these pieces fit (where are they?)

Monolithic Design

- A single unified codebase with a centralized back end and database

Client and Server Design

- The system consists of two applications (two codebases)
 - Client: mobile app
 - Server: backend + database

Other Designs

- Microservices
- Serverless Architecture

Summary

- What kind of system do you want to develop?