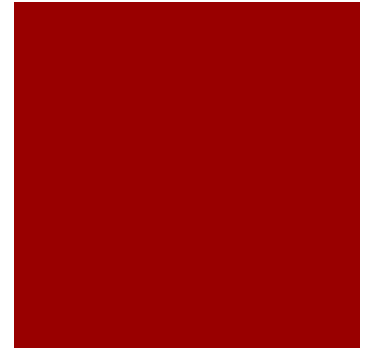# Software for Mobile Devices

Aliya Farooq

Objective

- What is a mobile device?

- What are mobile software/ applications.

- What is Mobile application development?

- Overview of Mobile Architecture

- Application Platforms

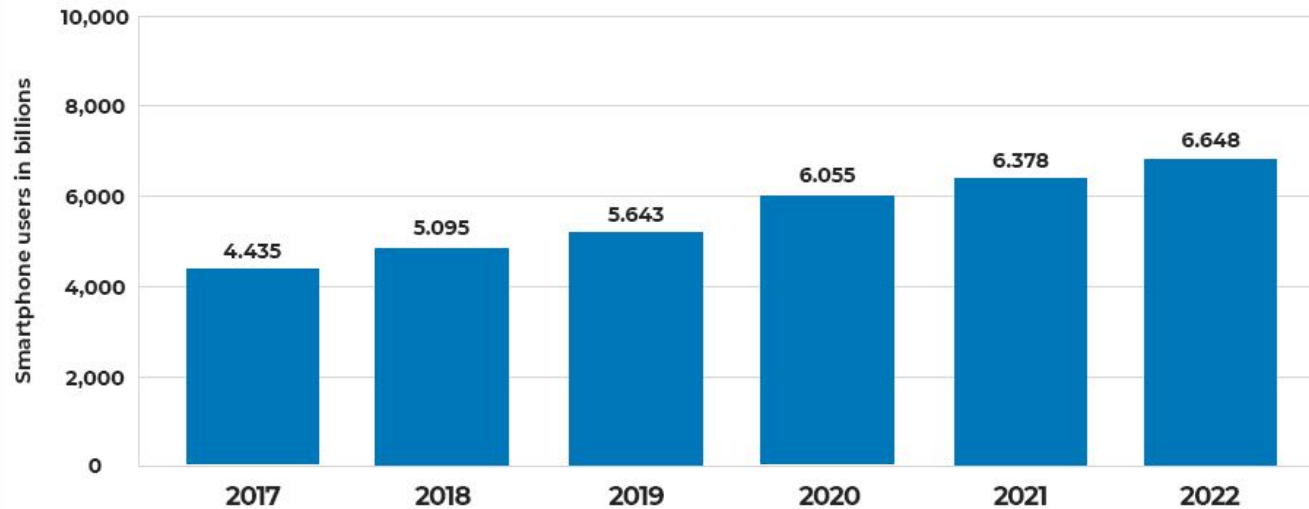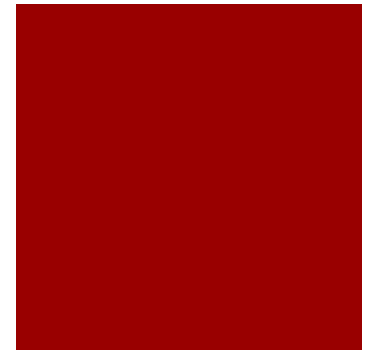- Introduction to Android platform

Mobile devices

- Featured phones
  - Calls
  - Sms
  - camera

- Smart Phones
  - Internet access
  - Social networking
  - Play games

- Millions of mobile users

- Communicate anywhere and anytime

- Private and personal

Smartphone Users

Mobile application Development

- application software
    - personal digital assistants
    - enterprise digital assistants
    - mobile phones.

- mobile software distribution platforms.
    - Pre-installed
    - Downloaded

- different platforms and programming languages

- Model-Driven development
    - the application itself and its structure
    - the business logic
    - the graphical user interface of the application

Typical Applications

- Location Based Applications

- Mobile workforce & field workers

- Remote Employees Collaboration

- GPS Tracking & Dispatching

- Mobile Money Transfers
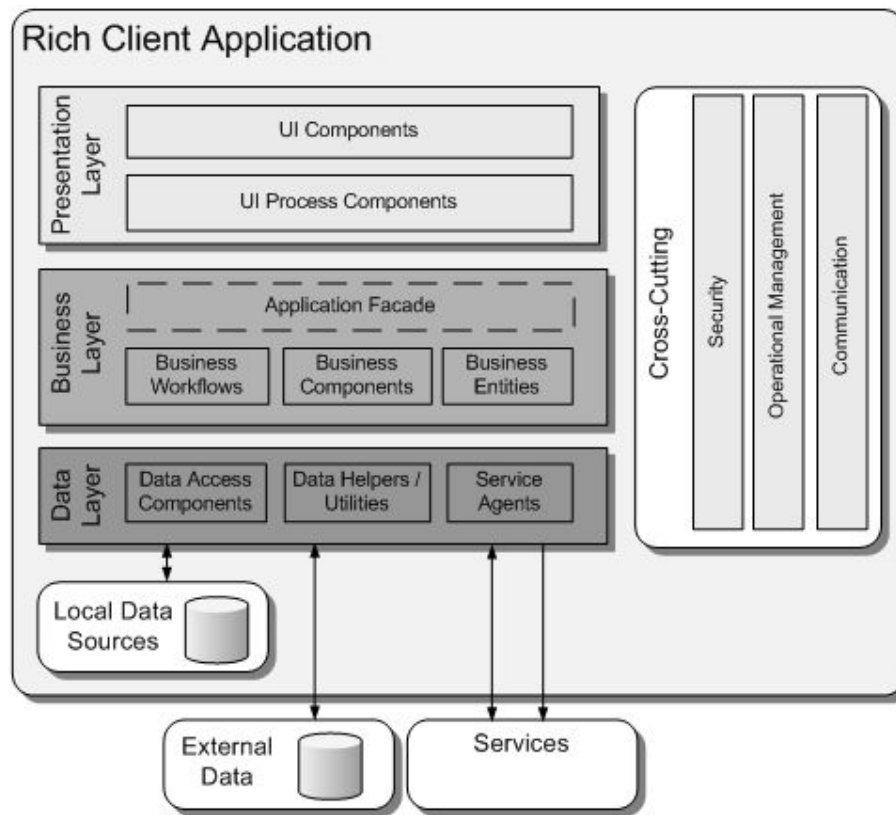
- Content Delivery & Publishing

Mobile application development

- Application types
  - Native mobile application
  - Cross-platform mobile applications
  - Progressive web

- Development Platforms:
  - iOS
  - Android
  - Windows Mobile/Windows Phone 7
  - BlackBerry
  - Symbian platform
  - BREW

Application Architecture

Mobile Software Engineering Future

- Health Apps

- Internet Banking

- Educational apps

- Tourism apps

- Apps for businesses

Introduction to Android Development

- Open software platform for mobile development

- offers a unified approach to developers

- A complete stack

- Powered by Linux operating system

- Fast application development in Java and Kotlin

- Open source under the Apache 2 license

Why Android?

Android	iOS
• Launch in 2008 • Most-used OS in the world • Generally written in Java • Open source • Used on Samsung, LG, Google, Huawei, Nokia, and other devices	• Launch in 2007 • 2nd most-used OS in the world • Generally written in Swift • Closed ecosystem • Used on exclusively Apple devices like iPhone, iPad, and Macbook

Development Tools

- Software Development Kit

- Android Studio Integrated Development Environment

- Target Devices

- Programming language
  - Java
  - Kotlin

Target Devices

Major Devices that runs on Android Operating System
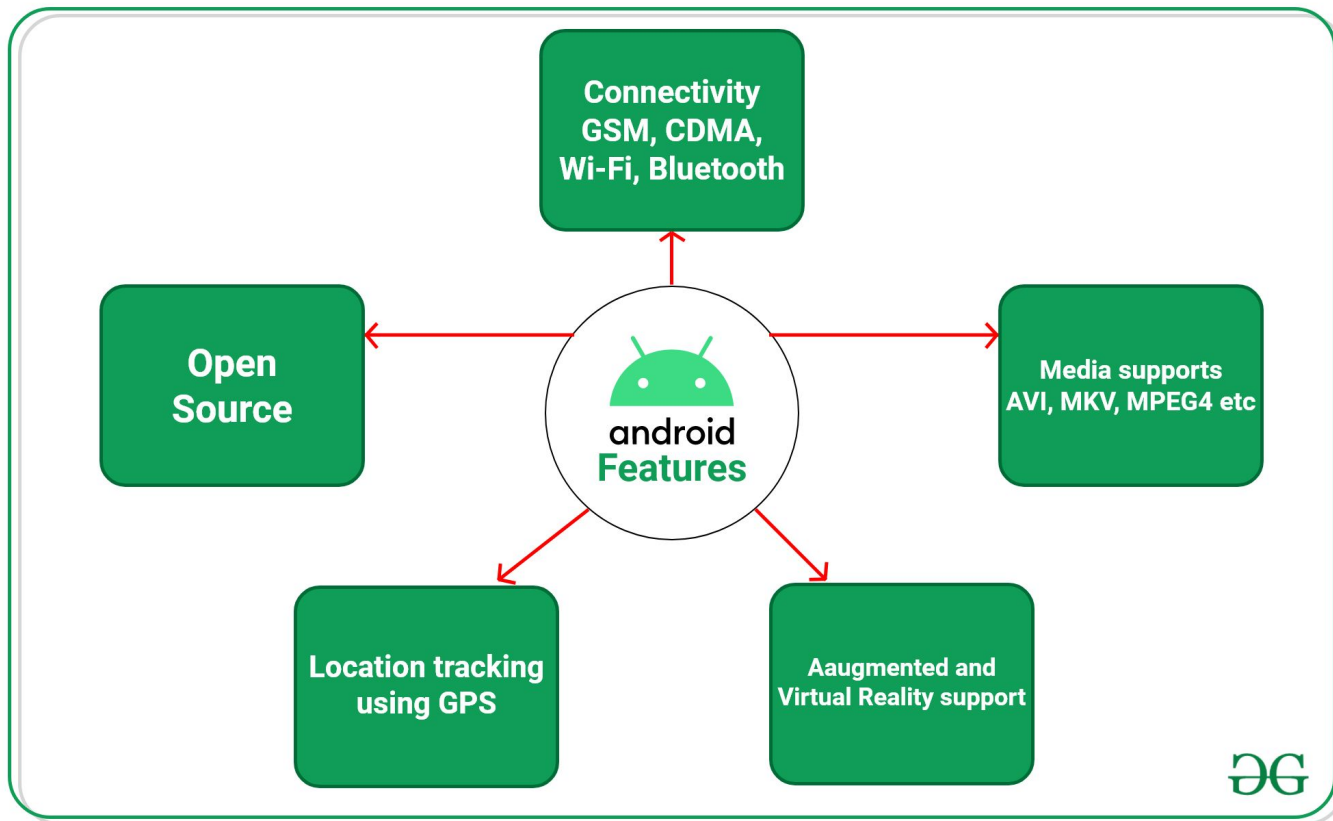
Smartphones

Tablets

android
Operating System

Smart watches

Smart TVs

Features

References

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