



Let's play a game!

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I U D Q Q H V I L L V P E H A
A P P L I C A T I O N L L P V
D X D L Q E O S M C X A I G Y
A E Y I H R L D Q H R T B W O
D N V H O M B X E X R F O V U
W J H E B R L Q X O S O M I E
V B D Y L D D U K O G R E Y L
X H R V E O W N F G A M E S X
H Z X N O J P T A X U J U H E
X G O W R Z W M S Z B V O M S
S H K P P A O W E O A V U W B
P V O K R B D V I N K F J K L
P D R E V T V I C W T J O F H
E R A W D R A H W C X Q S S Q
B D A G K N S V F R P M P R K

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Words Found

Mobile	Software
Application	Platform
Development	Code
Phone	Android
Hardware	Games

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Mobile Applications Development Overview

- ☐ Mobile Operating Systems
- ☐ Reasons for Developing Mobile Applications
- ☐ Development Environments
- ☐ Factors to Consider Before Developing Mobile Apps

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Mobile Operating System

- An operating system built exclusively for mobile devices (smartphones, tablets, PDAs, etc.)
- Responsible for defining mobile features and functions including keypads, application synchronization, and text messaging

- Definitions from www.techopedia.com

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Current Software Platforms

- Android (Google)
- iOS (Apple)
- Windows Phone (Microsoft)
- Others: Blackberry OS (RIM), Firefox OS (Mozilla), Sailfish OS (Jolla), Tizen (Linux Foundation), Ubuntu Touch OS (Canonical Ltd.)

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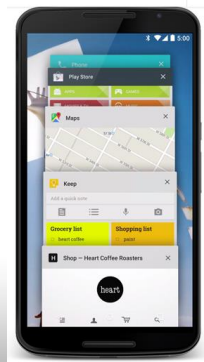
Android

- Owned by Google
- Open source OS (allows developer to access unlocked hardware and develop new programs)
- Most dominant smartphone platform

- Image from www.android.com

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iOS

- Owned by Apple Inc.
- Distributed exclusively for Apple hardware
- Powers iPhone, iPad, and iPod Touch
- Second largest mobile OS

-Image from www.apple.com

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Windows Phone

- Developed by Microsoft
- Home screen made entirely of Live Tiles
- Full support for Microsoft Office



- Image from www.microsoft.com

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Popular Mobile Apps

Facebook	Instagram	Twitter
YouTube	Skype	Temple Run
Netflix	Angry Birds	Messenger
Fruit Ninja	Dropbox	Evernote
Candy Crush	Clash of Clans	Despicable Me
WhatsApp	Google Maps	Subway Surfers
Spotify	Viber	Words with Friends

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Benefits of Mobile Apps

- Convenience
- Interactivity
- Personalization
- Speed
- Productivity

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Integrated Development Environment

- a programming environment that has been packaged as an application program
- Typically consists of :
 - Code editor
 - Compiler
 - Debugger
 - GUI builder

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Official IDEs

- Android Studio (Android)
- Xcode (iOS)
- Visual Studio (Windows Phone)

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Android Studio

- Official IDE for Android app development
- Based on IntelliJ IDEA (a Java IDE)
- Includes:
 - Code templates
 - Layout editor (with support for drag and drop theme editing)
 - Built-in support for Google Cloud Platform

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Xcode

- Used to build apps and run them directly on Apple devices
- Uses Swift (a programming language created by Apple for iOS, OS X, and watchOS development)

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Visual Studio

- Fully-featured, and extensible IDE for creating mobile applications for Windows, Android, and iOS
- Includes features such as:
 - Universal Windows Platform development
 - Cross-platform mobile development
 - Multiple languages support

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Factors to Consider Before Developing Mobile Apps

- Multiple platforms and devices
- Screen size
- User interaction
- Screen density
- Integration with phone functions
- Limited CPU/memory/battery resources

(Nalini, 2013)

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