User Interaction: Intro to Android

Assoc. Professor Donald J. Patterson
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Overview of Android

- Google play (née Android Marketplace)
- Place to get 3rd-party android apps
- Utilizes Google Checkout for payment
- Not exclusive source for applications
- Applications are not “blessed” at all by Google
- It is merely a convenience for developers

https://play.google.com/store?hl=en
Easy Tie
by basesign

Description

Don't know how to tie a tie?
Learn it with Easy Tie!
Easy Tie is an app that shows you step-by-step how to tie a necktie.
Knots included:
- Simple Knot
- Double K.
- Small K.
- Half Windsor K.
- Windsor K.

Visit Developer's Website

App Screenshots

Users who viewed this also viewed

More from developer

Users who installed this also installed

User Reviews

Average rating:
Description

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App Screenshots

User Reviews
Intro to Android

Android Features (hardware dependent)

- Application Framework
  - enabling reuse and replacement of components
- Dalvik virtual machine (now ART)
  - optimized for mobile devices
- Integrated browser
  - based on the open source WebKit engine
- Optimized graphics
  - powered by a custom 2D graphics library; 3D graphics based on the OpenGL ES 1.0 specification

Android Features (hardware dependent)

- SQLite
  - for structured data storage
- Media support
  - (MPEG4, H.264, MP3, AAC, AMR, JPG, PNG, GIF)
- GSM Telephony
- Bluetooth, EDGE, 3G, and WiFi
- Camera, GPS, compass, and accelerometer
- Some more advanced context in KitKat

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Android Features (hardware dependent)

- Multi-touch
  - brief concern about patent infringement with Apple
- Multi-tasking support
- Tethering
  - What is this?
- NFC / Android Beam

Android Features  (hardware dependent)

- Rich development environment
  - a device emulator
  - tools for debugging
  - tools for memory profiling
  - tools for performance profiling
  - plugin for Eclipse IDE

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Android Features (hardware dependent)

By default:

- Each application is run in its own process
- Each process has its own virtual machine
- Each process has its own user that runs it

Intro to Android

Application Fundamentals

- Code reuse is central to Android
- Applications can be started from several points
  - not just “main()”
- Four components that can be run:
  - Activities
  - Services
  - Broadcast receivers
  - Content providers

Application Fundamentals

- Activities
  - a user interface for doing a task
    - e.g., a photo browser, a “send-mail” interface
  - subclass of “Activity” base class
  - an application is a collection of activities that call each other (or activities in other applications)

Application Fundamentals

- Services
  - a task that is typically run in the background
  - e.g., a music player
  - subclass of “Service” base class

Application Fundamentals

• Broadcast receivers
• receives broadcast announcements
  • signals from the os and other applications
  • e.g., “user has entered a new location”
  • “user has taken a photo”
• subclass from “BroadcastReceiver”
Application Fundamentals

- Content provider
- provides data
- extends the “ContentProvider” class