User Interaction: Intro to Android

Assoc. Professor Donald J. Patterson
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Intro to Android

Application Fundamentals

• 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

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

Actually Developing for Android

• Download and install Eclipse (IDE)
• Download and install the Android SDK (external)
  • http://developer.android.com/sdk/index.html
• Download and install the ADT plugin
  • Use Eclipse’s built-in installer
• Set up SDK path
• Download and install the Android Platform (internal)
• Make a virtual device
