

# User Interaction: Intro to Android

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INF 133 Fall 2011



# Application Fundamentals

- By default:
  - Each application is run in its own process
  - Each process has it's own virtual machine
  - Each process has it's own user that runs it

A stylized illustration of a city skyline at the bottom of the slide. It features various buildings in shades of orange, blue, and green, with palm trees interspersed among them. The entire illustration is set against a green base representing grass or water.

<http://developer.android.com/guide/index.html>

# 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

A stylized illustration of a city skyline with various buildings in shades of orange, blue, and green, set against a light background. The buildings are simplified geometric shapes, and there are some green trees interspersed among them.

<http://developer.android.com/guide/index.html>

# 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)

A stylized illustration of a city skyline at the bottom of the slide. It features various building silhouettes in shades of orange, blue, and green, with palm trees interspersed among them.

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# Application Fundamentals

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



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# 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”



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# Application Fundamentals

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

A stylized illustration of a city skyline at the bottom of the slide. It features various buildings in shades of orange, brown, and blue, interspersed with green palm trees and foliage. The entire scene is set against a light green base representing grass.

<http://developer.android.com/guide/index.html>

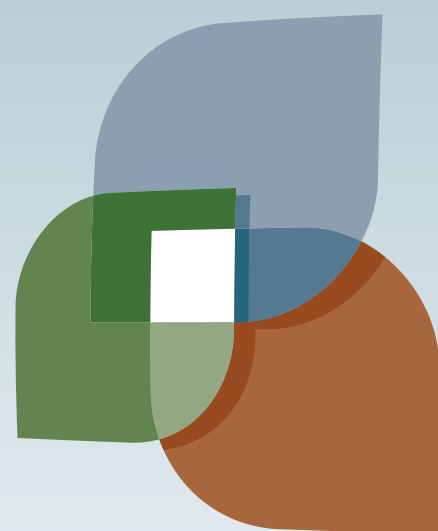
# Actually Developing for Android

- 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



<http://developer.android.com/guide/index.html>





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