



Fundamental Android UI Design

User Interface design, human–computer interaction, and usability are huge topics that aren't covered in great depth in this book. Nonetheless, it's important that you get them right when creating your User Interfaces.

Android introduces some new terminology for familiar programming metaphors that will be explored in detail in the following sections:

- ❑ **Views** *Views* are the basic User Interface class for visual interface elements (commonly known as controls or widgets). All User Interface controls, and the layout classes, are derived from Views.
- ❑ **ViewGroups** *View Groups* are extensions of the View class that can contain multiple child Views. By extending the ViewGroup class, you can create compound controls that are made up of interconnected child Views. The ViewGroup class is also extended to provide the layout managers, such as `LinearLayout`, that help you compose User Interfaces.
- ❑ **Activities** *Activities*, described in detail in the previous chapter, represent the window or screen being displayed to the user. Activities are the Android equivalent of a Form. To display a User Interface, you assign a View or layout to an Activity. Android provides several common UI controls, widgets, and layout managers.

For most graphical applications, it's likely that you'll need to extend and modify these standard controls — or create composite or entirely new controls — to provide your own functionality.