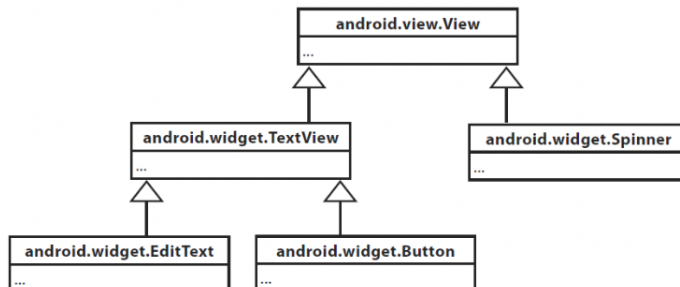
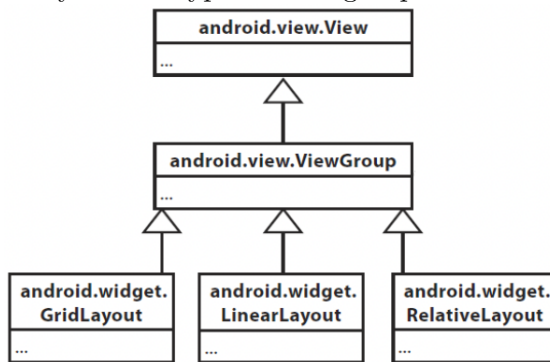


1 Introduction to Android

- Android
 - Android is a platform comprising of three components
 - * An operating system
 - * A framework for developing applications
 - * Devices that run the Android operating system and the applications created for it
 - Android SDK
 - * A collection of libraries and tools that are needed for developing Android applications
 - Android Studio
 - * IDE for Android application development
- Android App Basics
 - An Android app is a collection of screens, and each screen is comprised of a layout and an activity
 - * Layout: describes the appearance of a screen (written in XML)
 - * Activity: responsible for managing user interaction with the screen (written in java)
 - Folder structure:
 - * Manifest file * Resource files
 - * Java file * Gradle scripts
- The Manifest file
 - It defines the structure and metadata of an application, its components, and its requirements
 - Stored in the root of its project hierarchy as an XML file
- Resources and resource IDs
 - Resources are maintained in sub-directories of the **app/res** directory
 - * **res/layout**
 - * **res/values**
 - * Etc.
 - A resource can be accessed in the code using its resource ID (e.g. **R.layout.activity_main**)
 - * Android uses **R.java** to keep track of the resources used within the app
- View
 - Most GUI components are instances of the **View** class or one of its subclasses
 - * e.g. Button, EditText, ImageView, etc.



- View Group
 - A special type of view that can contain other views
 - A layout is a type of view group



- Common GUI components
 - TextView
 - EditText
 - Button
 - Switch
 - Spinner
 - Toast
- Intents
 - An intent is an object that can be used to bind activities together at runtime
 - * If one activity wants to start a second activity, it does it by sending an intent to Android. Android will start the second activity and pass it the intent
 - Data can be passed between activities using intent extras
 - * e.g. `intent.putExtra("message", value);`