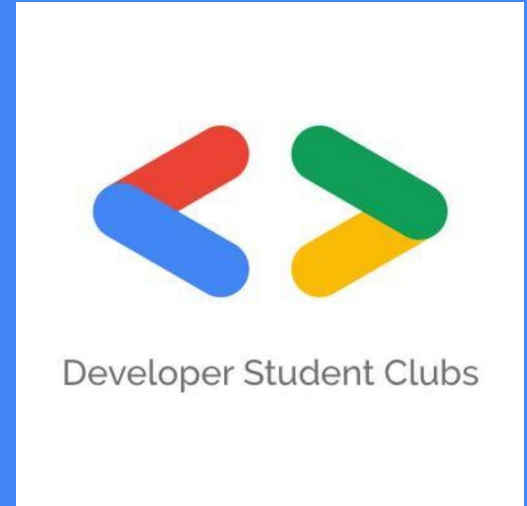
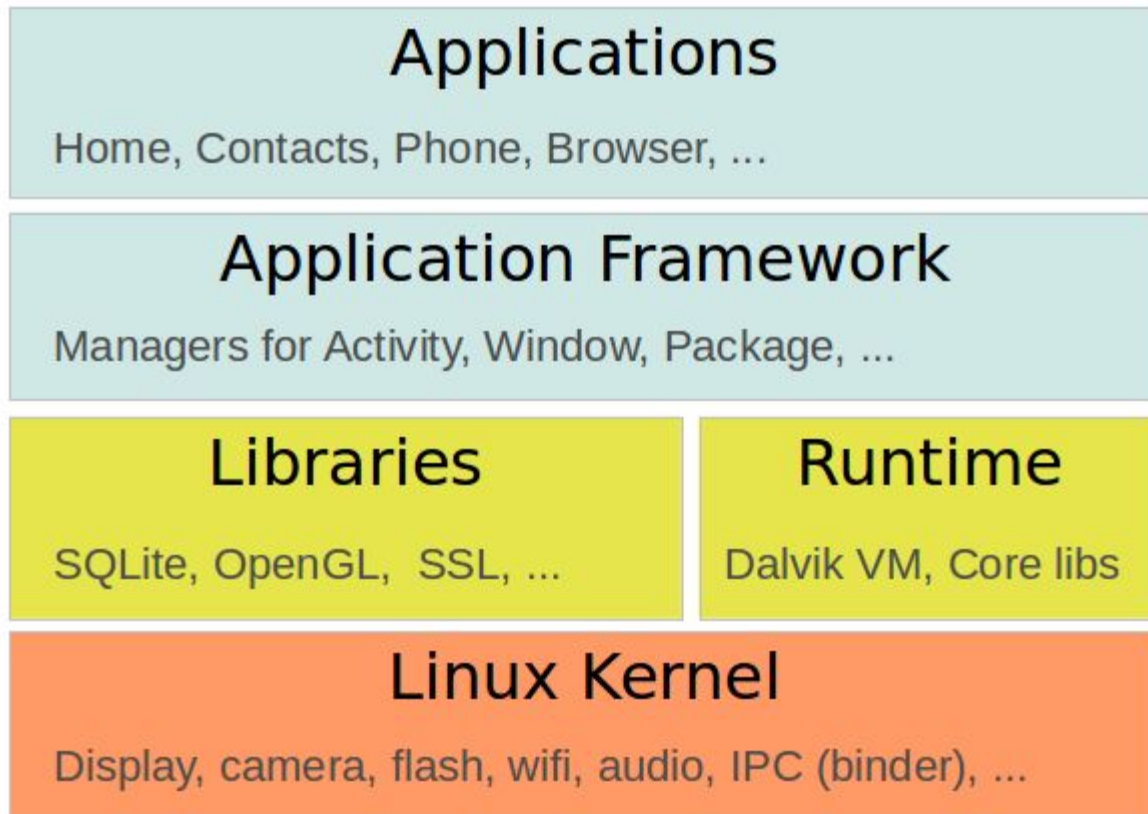


Workshop: Android App Development

Introduction to Android



Android System Software Stack



Inside Application Framework

View System	Used to build an application, including lists, grids, text boxes, buttons, and embedded web browser
Content Provider	Enabling applications to access data from other applications or to share their own data
Resource Manager	Providing access to non-code resources (localized string , graphics, and layout files)
Notification Manager	Enabling all applications to display customer alerts in the status bar
Activity Manager	Managing the lifecycle of applications and providing a common navigation backstack

Android Components

Activities

An activity represents a single screen with a user interface, in-short Activity performs actions on the screen.

Services

A service is a component that runs in the background to perform long-running operations.



Broadcast Receivers

Broadcast Receivers simply respond to broadcast messages from other applications or from the system.

Content Providers

A content provider component supplies data from one application to others on request.

Additional Components

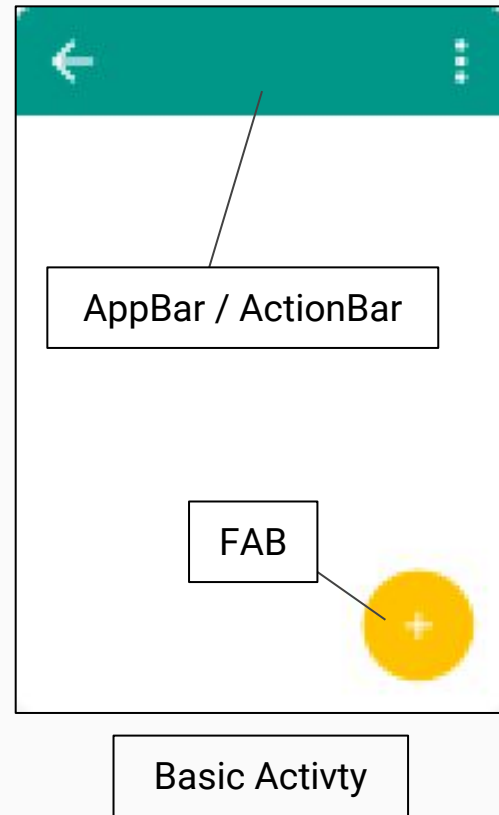
There are additional components which will be used in the construction of above mentioned entities

Activity

Typically correspond to one UI screen

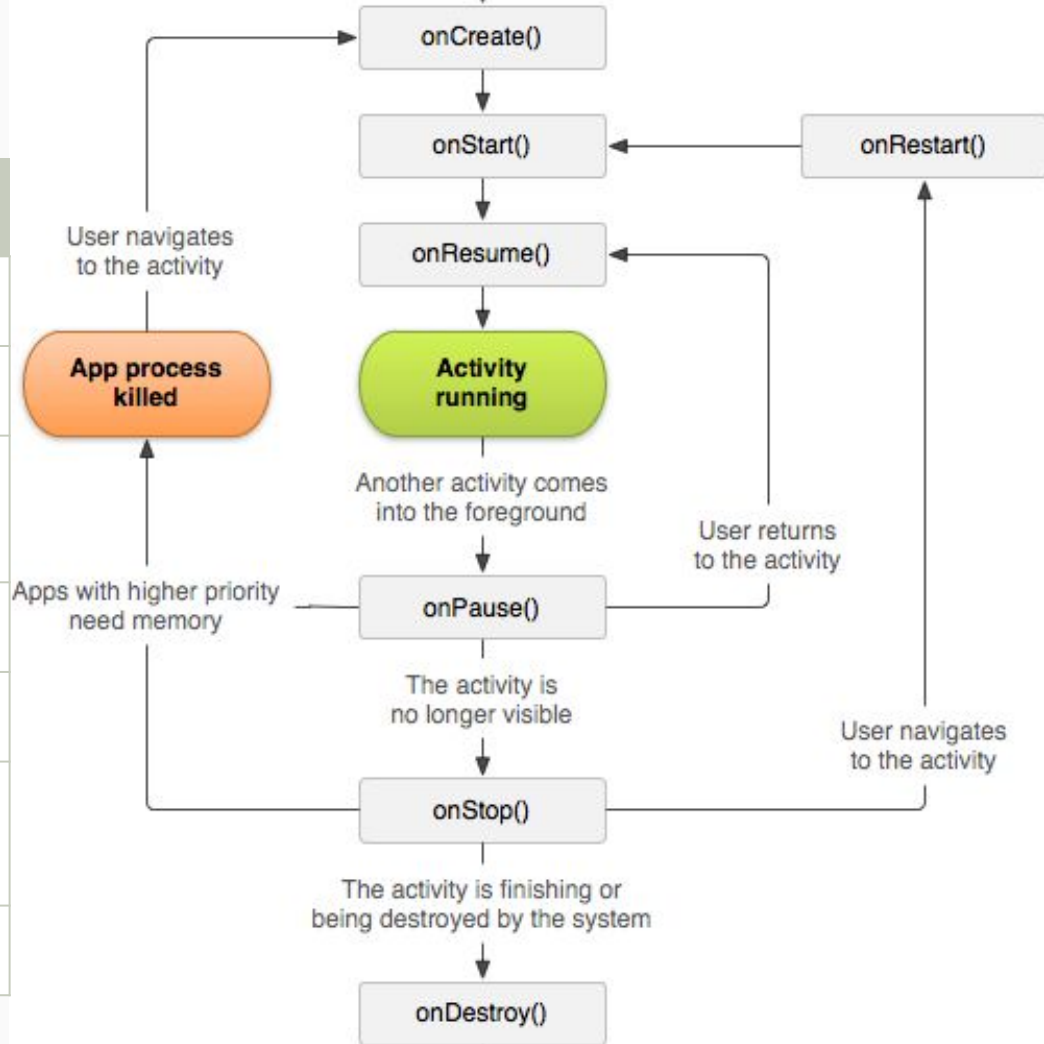
But, they can:

- Be faceless
- Be in a floating window
- Return a value



Activity Life-Cycle

Method	Description
onCreate	called when activity is first created.
onStart	called when activity is becoming visible.
onResume	called when activity will start interacting with the user.
onPause	called when activity is not visible.
onStop	called when activity is no longer visible.
onRestart	called after your activity is stopped, prior to start.
onDestroy	called before the activity is destroyed.



View and ViewGroup

View

1. `View` objects are the basic building blocks of User Interface(UI) elements in Android.
2. Examples are `TextView`, `EditText`, `Button`, `CheckBox` etc..
3. `View` refers to the `android.view.View` class, which is the base class of all UI classes.

ViewGroup

1. `ViewGroup` is an invisible container. It holds `View` and `ViewGroup`
2. For example, `LinearLayout` is the `ViewGroup` that contains other views in a LINEAR fashion.
3. `ViewGroup` is the base class for Layouts.
4. It's base class is `View`

