Mobile Application Programming: Android

Global Application State
Activities

- Apps are composed of activities
- Activities are self-contained tasks made up of one screen-full of information
- Activities start one another and are destroyed commonly
- Apps can use activities belonging to another app
Application
Application Controller (MVC)
Launching Activities
Launching Activities

Intent
Launching Activities

How to share model?
Application Class

- Instantiated **before** any Activity
- Can be accessed using any Context object using `getApplication()` method
- Has an **onCreate** method
- Does **not** have an **onPause**
  - **onTerminate** also does not work as a replacement
- Can then define a sub-class that offers the data model as a method call e.g. `getBookLibrary()`
Sharing Using Application
Sharing Using Application
Sharing Using Application
Singletons

- Single-instance class with global state
- Time-tested design pattern
- Enforces instantiation controls (only one can be made)
- Has a `getInstance()` method that makes singleton
- Should be thread-safe where possible
- Need to define a way to make persistent and call in an appropriate place in your application to save data
- More modular solution than using the Application class