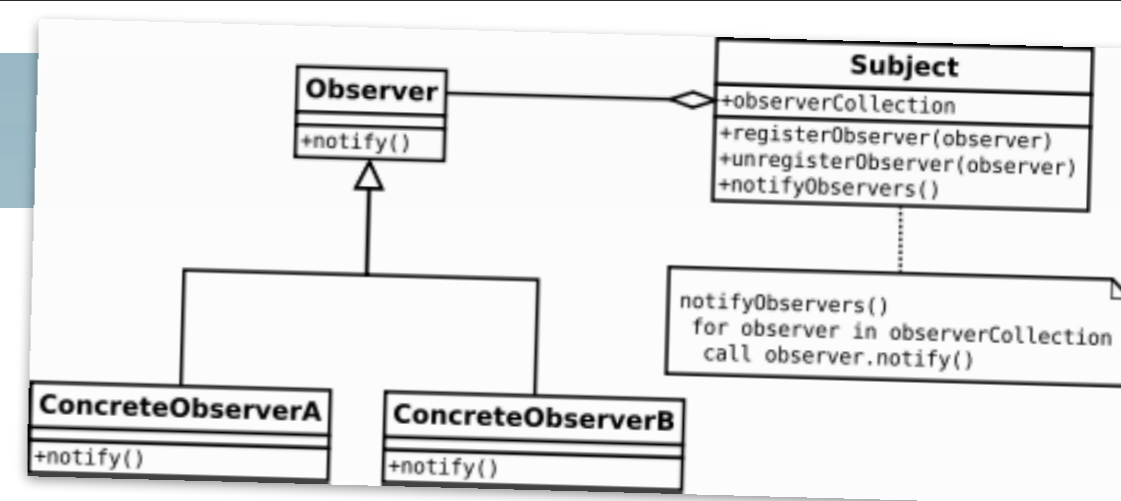


# User Interaction: Intro to Android

Assoc. Professor Donald J. Patterson  
INF 133 Fall 2013

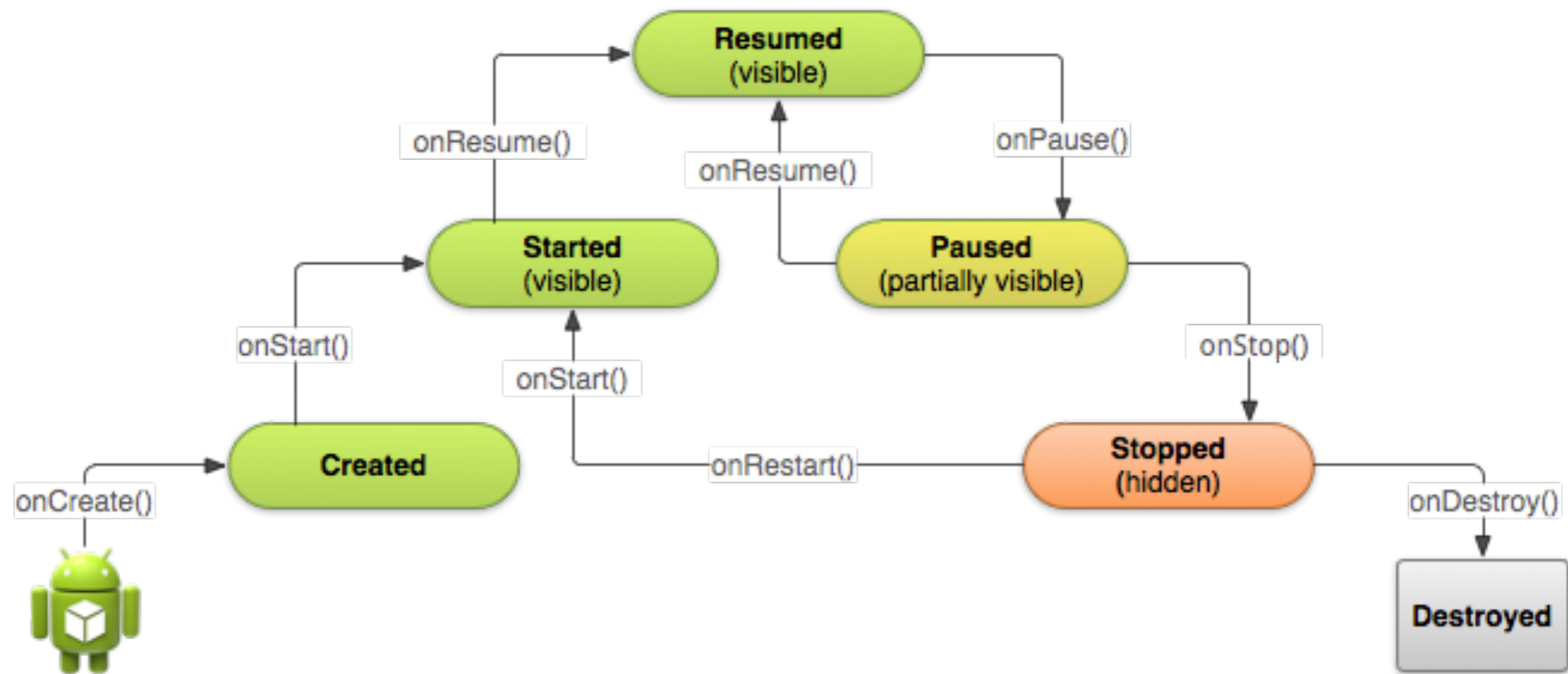


# Activity Lifecycle



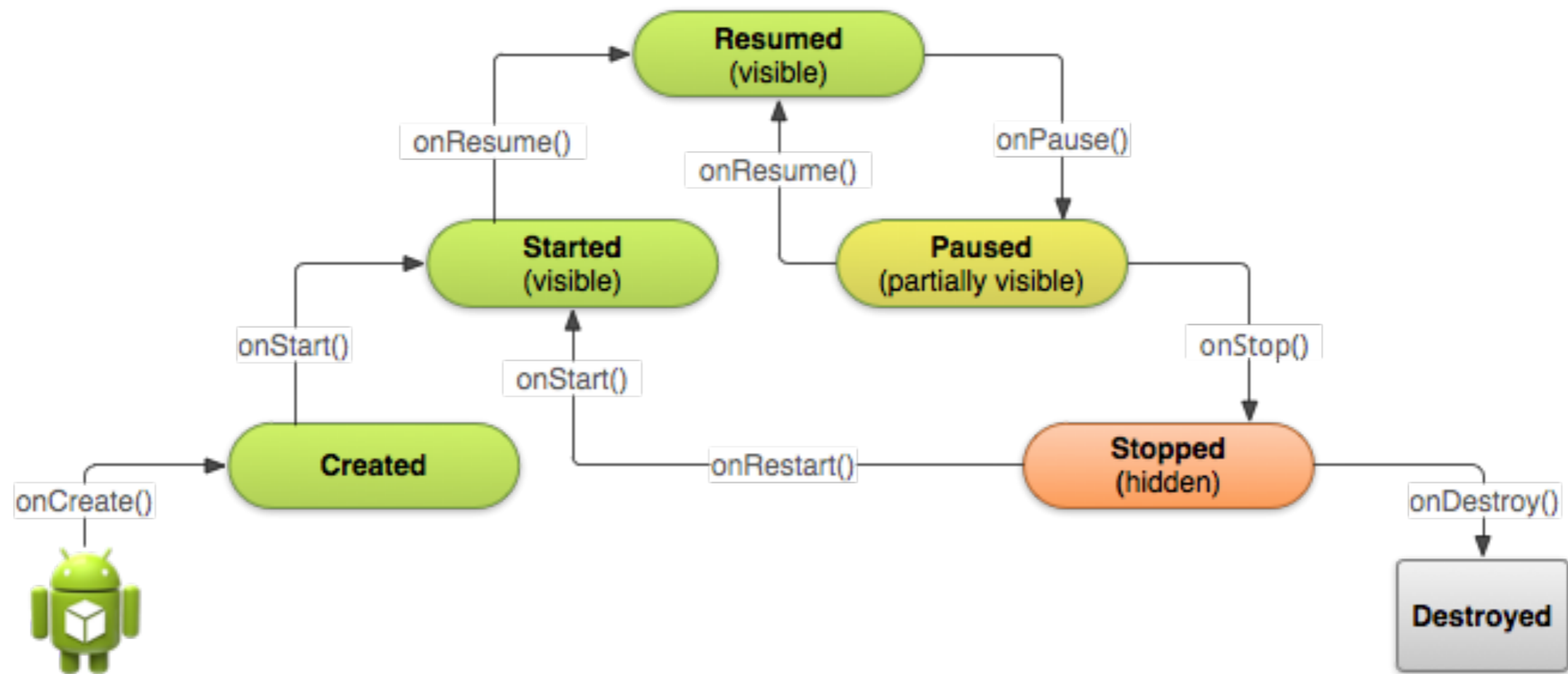
- Unlike traditional Java, Android does not use a “main” function
- It uses a sophisticated set of callbacks
- Each step of the callback corresponds to a step in the **lifecycle** of the app
- This is so that the phone can shut your app down when important things happen, like a phone calls arriving
- An implementation of the Activity class contains the callbacks
- “Activity” maps to “Observer”

# Activity Lifecycle



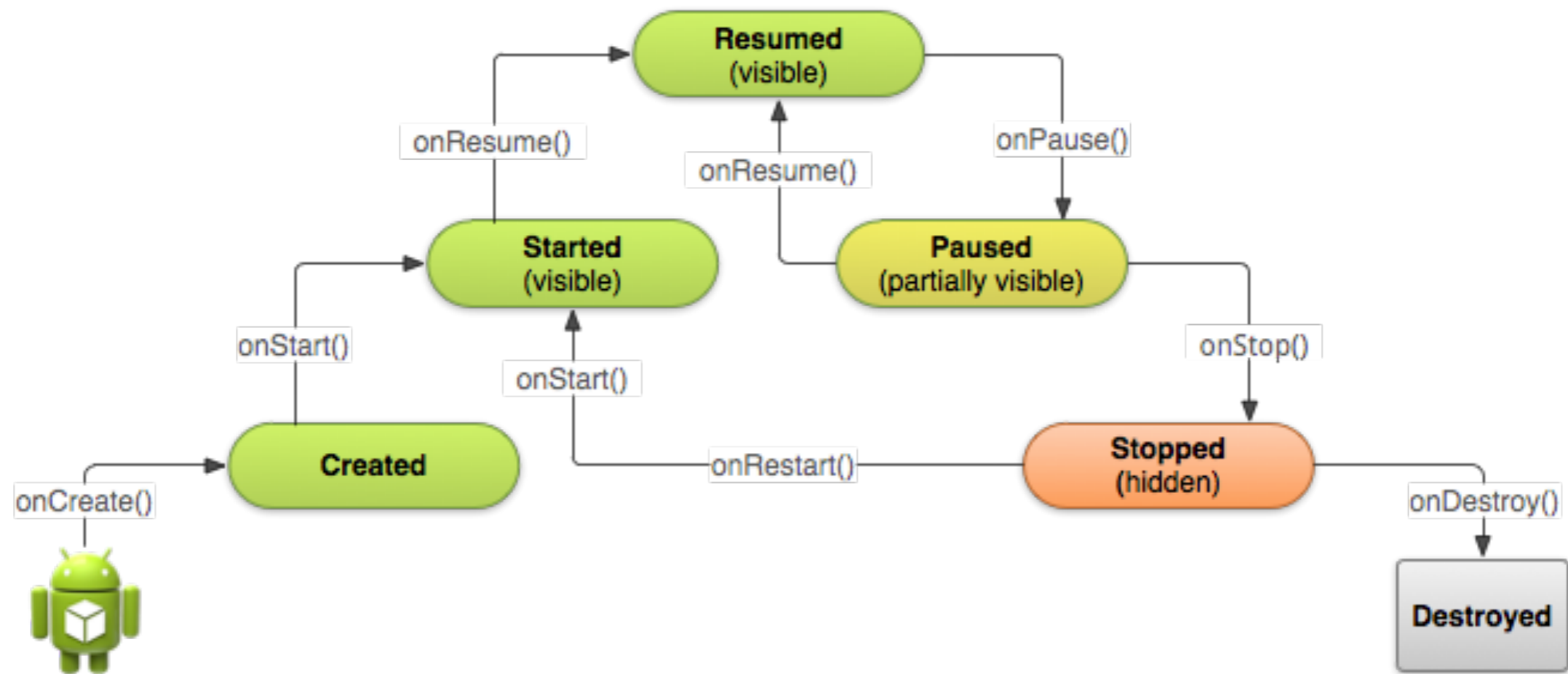
- Key loops
  - Entire Lifetime
  - `onCreate()`- `onDestroy()`

# Activity Lifecycle



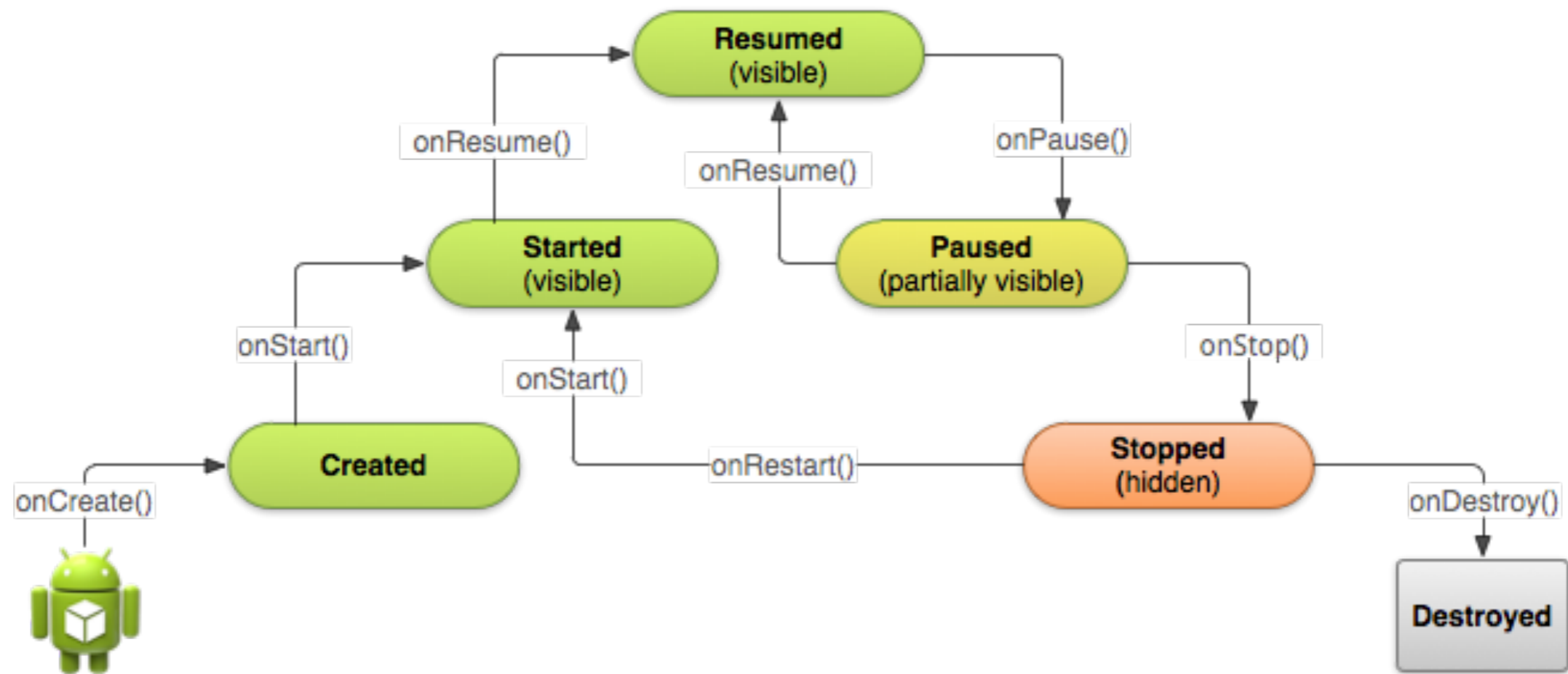
- Key loops
  - Visible Lifetime
    - `onStart()` - `onStop()`

# Activity Lifecycle



- Key loops
  - Foreground Lifetime
    - `onResume()` - `onPause()`

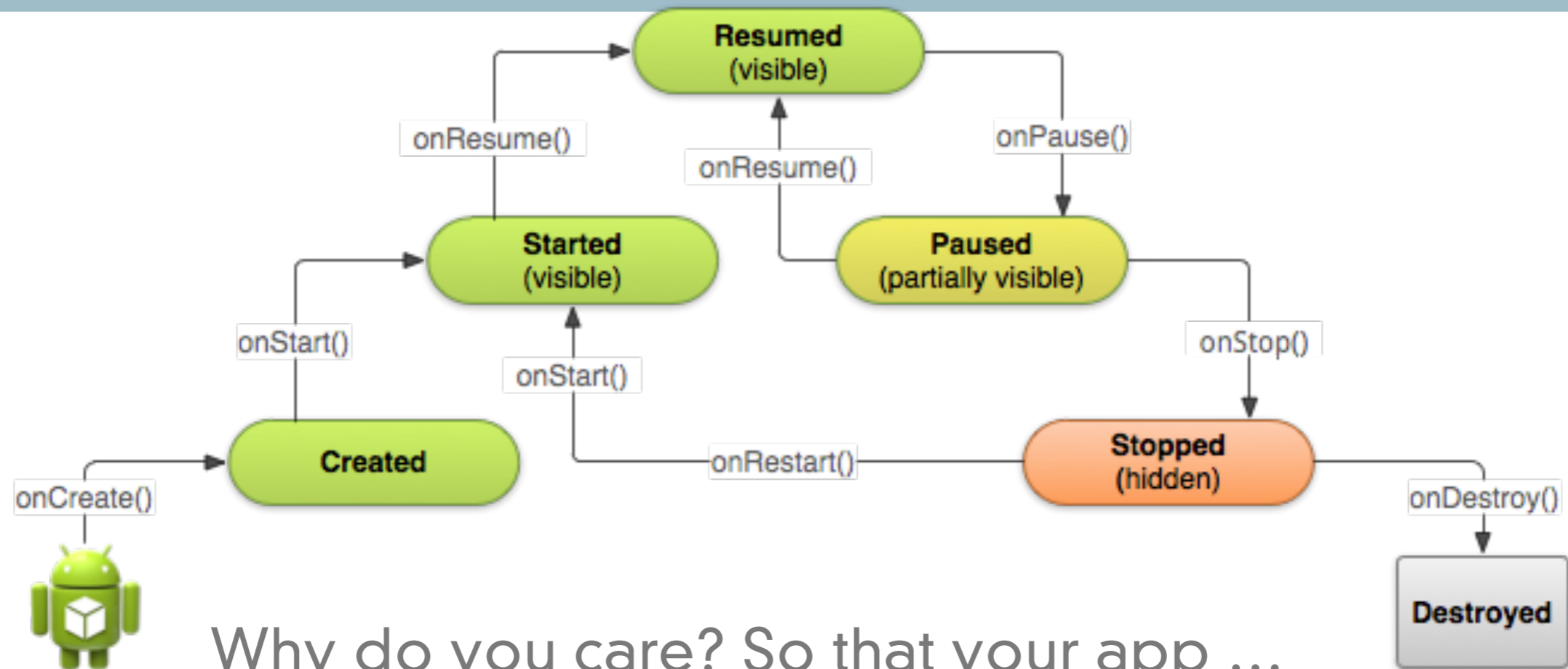
# Activity Lifecycle



- `onPause()` may be followed by kill



# Activity Lifecycle

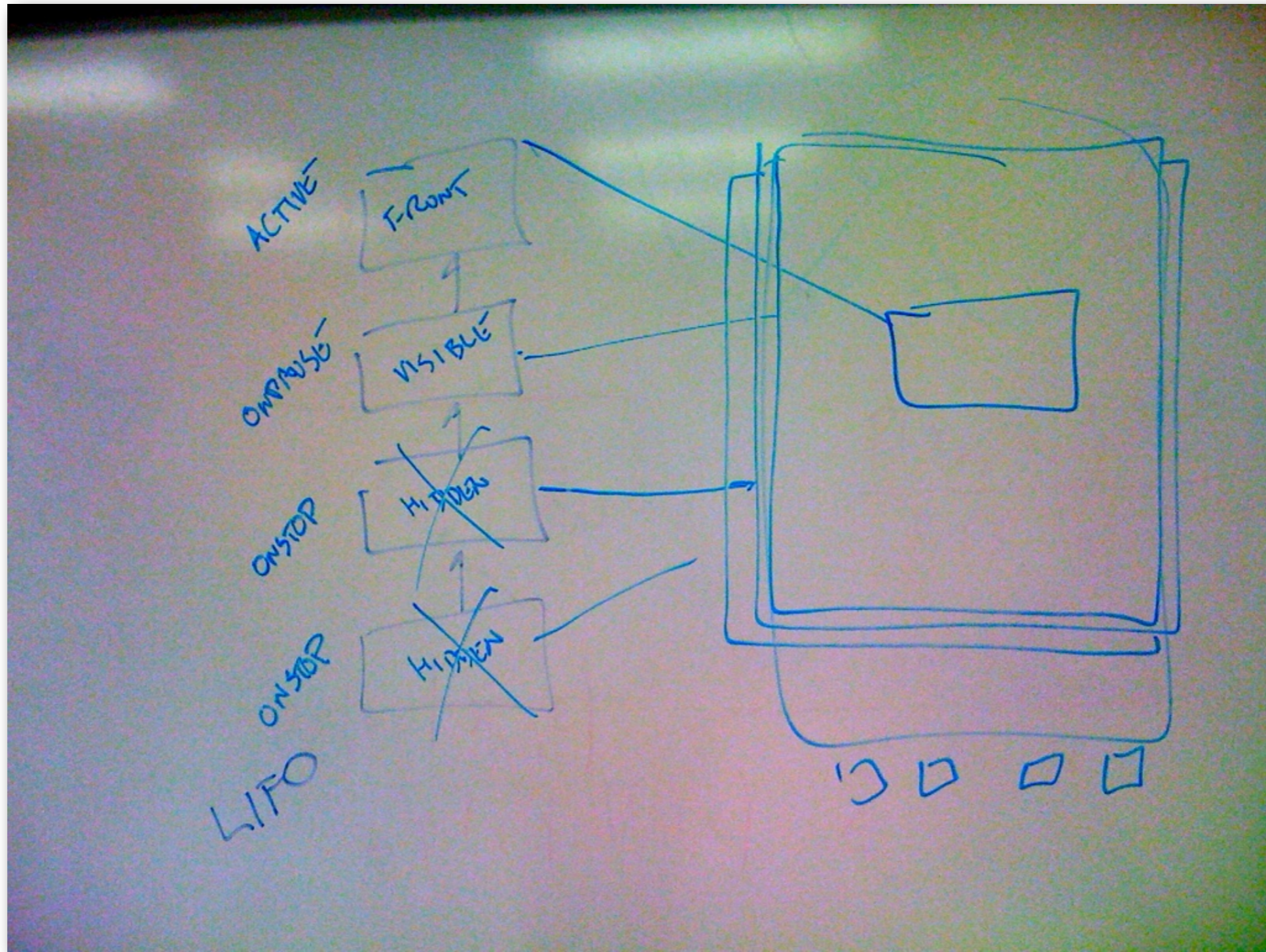


Why do you care? So that your app ...

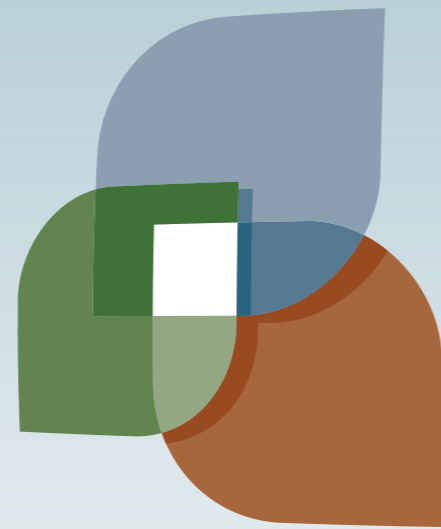
- Does not crash if the user receives a phone call or switches to another app while using your app.
- Does not consume valuable system resources when the user is not actively using it.
- Does not lose the user's progress if they leave your app and return to it at a later time.
- Does not crash or lose the user's progress when the screen rotates between landscape and portrait orientation.



# Activity Stack







L U C I

