



# Programming with Android: Activities

Luca BedogniMarco Di FeliceDipartimento di Scienze dell'InformazioneUniversità di Bologna

## Activity



#### ≻Outline:

- What is started by the device
- It contains the application's informations
- Has method to answer certain events
- An application could be composed of multiple activities



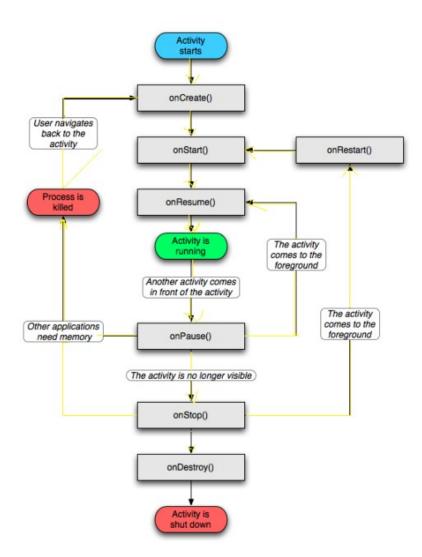
## **Creating an activity**

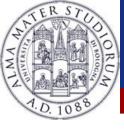
#### Create a class that is a subclass of Activity

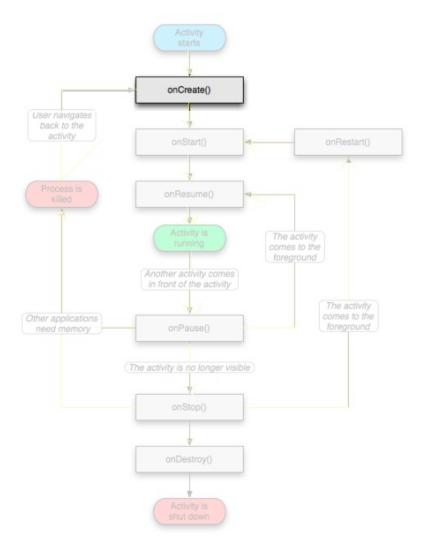
#### Implement callback methods

- > OnCreate():
  - Initialize
  - > SetContentView()





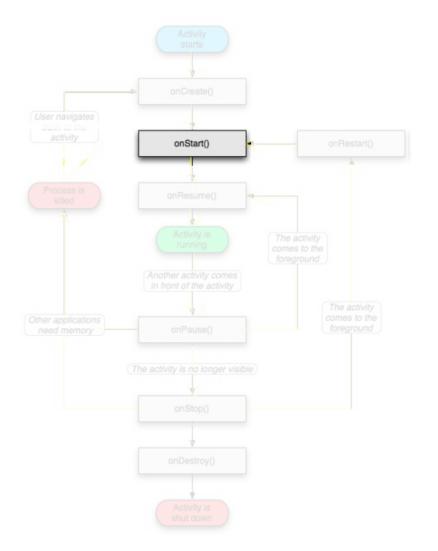




#### >OnCreate()

- Called when the activity is created
- Should contain the initialization operations
- Has a Bundle parameter
- > If onCreate() succesfull
  terminates, it calls onStart()

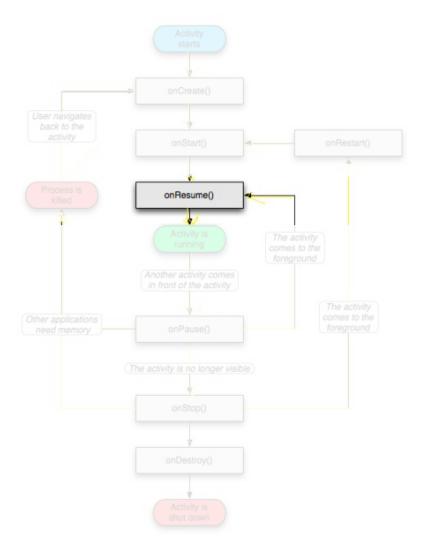




### >OnStart()

- Called when onCreate() terminates
- Called right before it is visible to user
- If it has the focus, then onResume() is called
- > If not, onStop() is called

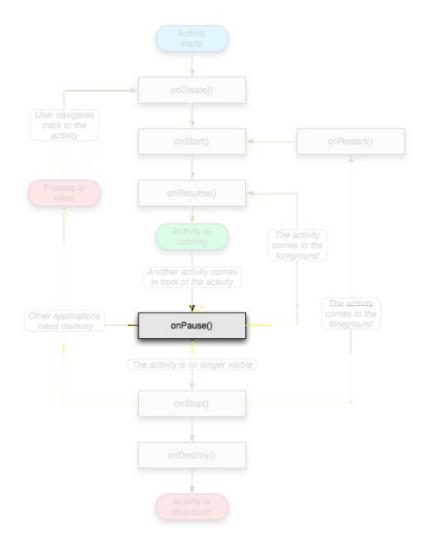




#### >OnResume()

- Called when the activity is ready to get input from users
- Called when the activity is resumed too
- If it succesfully terminates, then the Activity is RUNNING

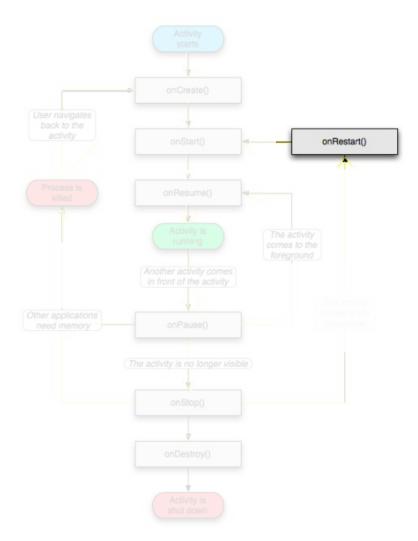




#### >OnPause()

- Called when another activity comes to the foreground, or when someone presses back
- Commit unsaved changes to persistent data
- Stop cpu-consuming processes
- Make it fast

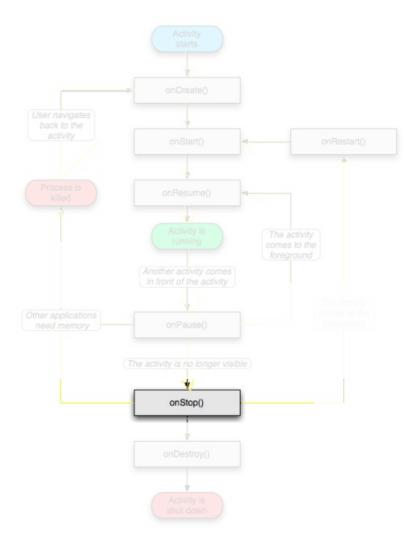




#### >OnRestart()

- Similar to onCreate()
- We have an activity that was previously stopped

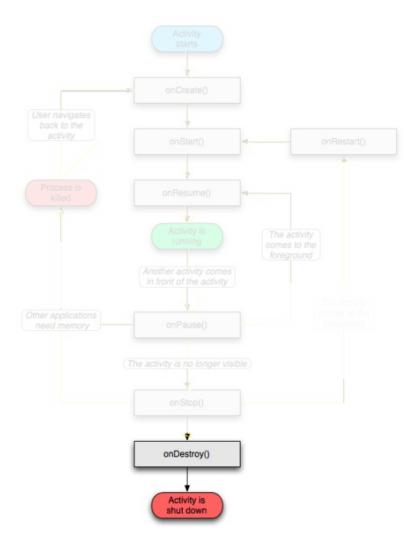




## >OnStop()

- Activity is no longer visible to the user
- Could be called because:
  - the activity is about to be destroyed
  - another activity comes to the foreground





## >OnDestroy()

- The activity is about to be destroyed
- Could happen because:
- The systems need some stack space
  - Someone called finish() method on this activity
  - > Could check with isFinishing()