University of Stirling
Computing Science
Mobile App Development

Android Practical 3

Android Intents

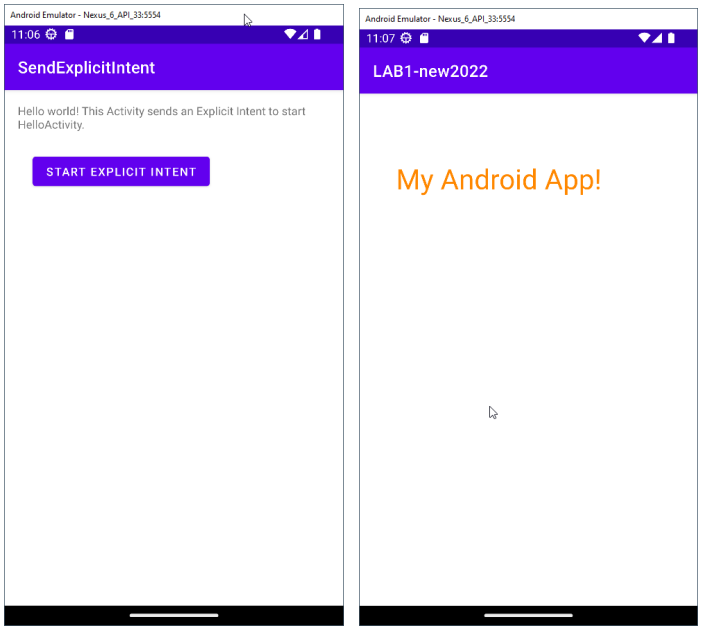
Overview

Make sure your Hello World application is deployed and running on your emulator/phone. In this practical you will work with pairs of Activities. One is triggering the other.

Screen shots have been added as indicative guides but may differ slightly to what you see.

Step 1: Basic Intent Example

Following the example in the lectures write an application which raises an intent to execute your 'Hello World' activity. This needs to be deployed on the emulator in order for this example to work. You will need a button to trigger the Intent. Make sure you are linking to the correct package and class names as you have used in your first practical.

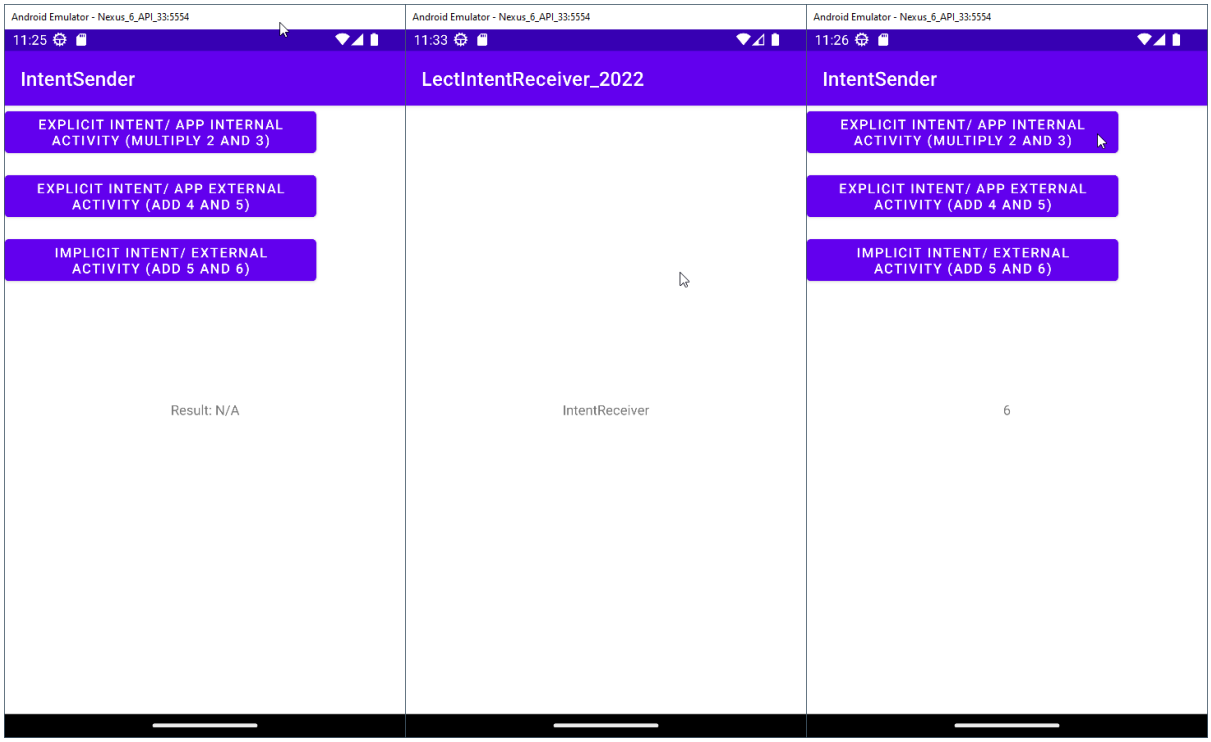


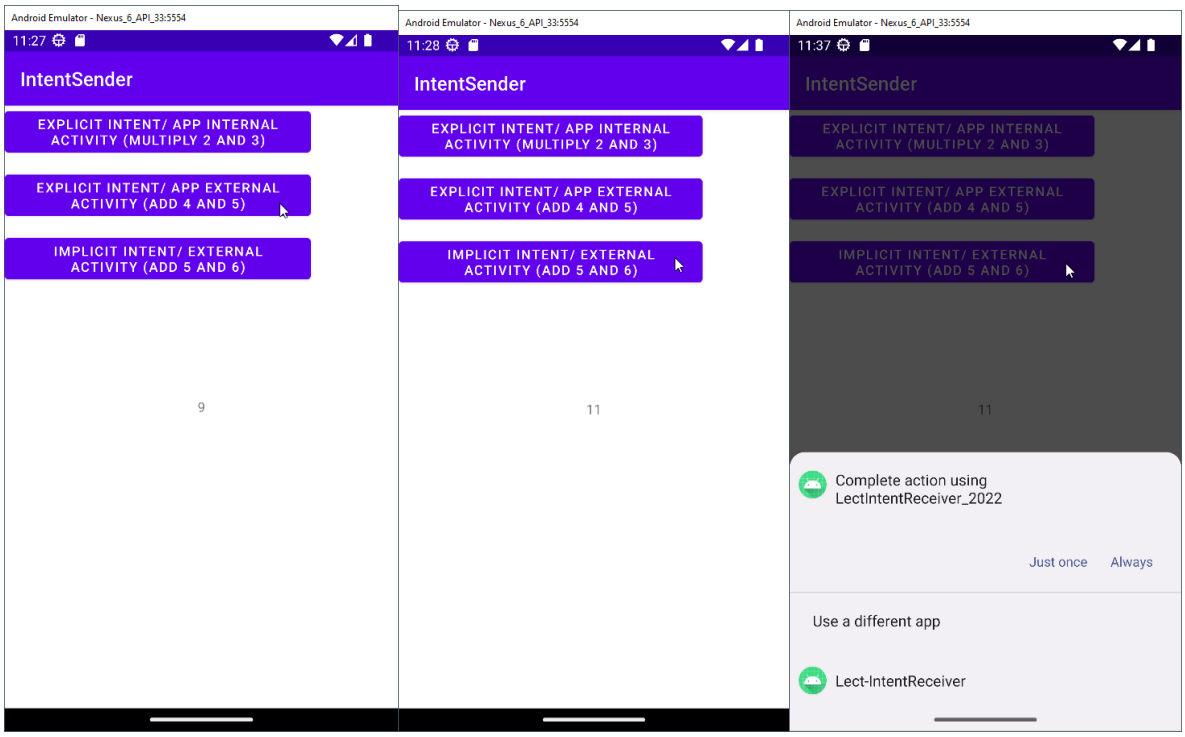
Try and amend your programme to now call your second lab solution instead (Currency Converter). Ideally, you would have a second button, so the user can decide which Activity should be called.

Step 2: Intents with Return Values

Next setup a new project (Empty Activity) to develop an example which has an Activity which raises an Intent and receives a result back. Let's use a basic multiplication of two values which are passed as parameters with the raised Intent, and the result will be passed back on completion. You should implement this in three different ways:

- Explicit Intent, call an app internal Activity; your app will consequently need two Activities who pass the Intents between them. Call one Activity IntentSender and the other IntentReceiver
- Explicit Intent, call an Activity which belongs to a different app (you have done this in the first step above). Extend your IntentSender Activity to include this option.
- Implicit Intent, call an Activity which belongs to a different app (as before) but rather than naming the package and class explicitly, use an Action which is implemented by the receiving Activity. You can use the same external app as above, but you should define the Action which links to the receiving Activity. This approach allows for more than one application to service the Intent. If there are multiple suitable applications deployed on the phone/emulator, the user will get a choice. You can force this behaviour by creating another app who also implements the same Action.





Checkpoint!

You have now reached a checkpoint. Please show your solution to the staff.