

Lab.01 Practice with Intents

Create a new project with name *Lab01.Surname*.

1. Sending parameters between activities

1. Create 3 **activities**: *MainActiv*, *ParamActiv* and *ResultActiv*
2. All the layouts are the same: a TextView (with its name), an EditText and 5 buttons. You can use the layout and code templates, but *id* of each widget **must be unique**.
3. Each life cycle method of each activity launches a specific log message *Log.d()*.
4. Pick the sent parameter in the *onCreate()* method and display it on the EditText.
5. Add the activation methods (callbacks) of each button :
 - *mainActivBut*: calls the main activity, without parameters.
 - *paramActivBut*: calls the *ParamActiv* activity with a parameter (the value of the EditText). NO RESULT VALUE is expected (see theory).
 - *resultActivBut*: calls the *ResultActiv* activity with a parameter (EditText's value). A RESULT VALUE IS EXPECTED and showed in the EditText when back (see theory).
 - *killBut*: call the *finish()* method.
 - *okBut*: sends back the EditText's value (see theory).
6. Count how many times each activity is launched, and show it in the TextView. Save the numbers with the *onSaveInstanceState* method (with its limitations).
7. Make the application with three "entry points", one for each activity. You should select different icon and label for each one.

2. Intent filter and Broadcast Receiver

1. Create a new activity, *WebActiv*, with only a TextView on its layout.
2. Register it in the Manifest file as a viewer (action VIEW), get the data (a requested URL string) in the intent and show it in the TextView.
3. Also dynamically register the *ParamActiv* and *ResultActiv* activities with two actions:
 - system action: ACTION_EDIT.
 - a new defined (software) action: *es.udc.psi1819.ACTION_ECHO*.

Do not forget to unregister when not in use.

4. Create a new Broadcast Receiver, register it into the system events¹ and carry out the actions (**Nota**: probarlo en dispositivo Android con API ≥26):

¹In the emulator use *More > Battery > Charge connection*, change between *None* and *AC charger*.

- ACTION_POWER_CONNECTED: launch the main activity (MainActiv).
- ACTION_POWER_DISCONNECTED: launch the ParamActiv with "-1" value.

Do not forget to launch a log message to identify each action.

5. Test all the broadcast, by using the **adb** command or adding new buttons that launch each broadcast.