



# Interactive Mobile Development

## Worksheet 5 – BroadcastReceiver – Incoming Call

You will be creating an application with 1 activity which shows a Toast once the device receives a call

**N.B. run the application on the emulator to simulate an incoming call**

1. Create a new Application called IncomingCallListener
2. Create a Main Activity – (empty)
3. Create a new Java Class which extends PhoneStateListener
4. Override the method `onCallStateChange()` with the code below:

```
@Override
public void onCallStateChanged(int state, String incomingNumber) {
    switch (state) {
        case TelephonyManager.CALL_STATE_RINGING:
            // called when someone is ringing to this phone

            Toast.makeText(ctx,
                "Incoming: "+incomingNumber,
                Toast.LENGTH_LONG).show();
            break;
    }
}
```

5. Register the Listener in the method `onCreate()` of the main Activity using the following code

```
TelephonyManager tm = (TelephonyManager)
    this.getSystemService(Context.TELEPHONY_SERVICE);
tm.listen(new CallStateListener(), PhoneStateListener.LISTEN_CALL_STATE);
```

6. Add the permission `READ_PHONE_STATE`
7. Use the Emulator to Simulate an incoming call
8. Add a ListView to the MainActivity and create a simple log of all calls
9. Make use of persistency of your choice to store the log