P82 Mobile Application Development - Android

Threads and custom animations

Android and Threads

♦ Android imposes **two rules**:
   Do not block the main thread for more than 5 seconds
   Do not perform GUI operations outside the main thread (also known as UI thread)

♦ Solution: android has methods that will allow you to delegate the execution of the GUI to the UI Thread
   post()
   postDelay()

♦ In the end we will put a Runnable in a queue

Handler handler = new Handler();

♦ The Handler class contains a mechanism that allows it to add messages or "runnables" to a message queue.

```
handler.postDelayed(new Runnable() {

public void run() {

//restart the handler after a delay
    handler.postDelayed(this, 100);
}
}, 100);
```

Making animations - layout()

♦The idea is to use the layout method of our component in a thread

```
handler.postDelayed(new Runnable() {
    public void run() {
        iv.layout(iv.getLeft()+1, iv.getTop(),
        iv.getRight()+1, iv.getBottom());
        handler.postDelayed(this, 100);
    }
}, 100);
```