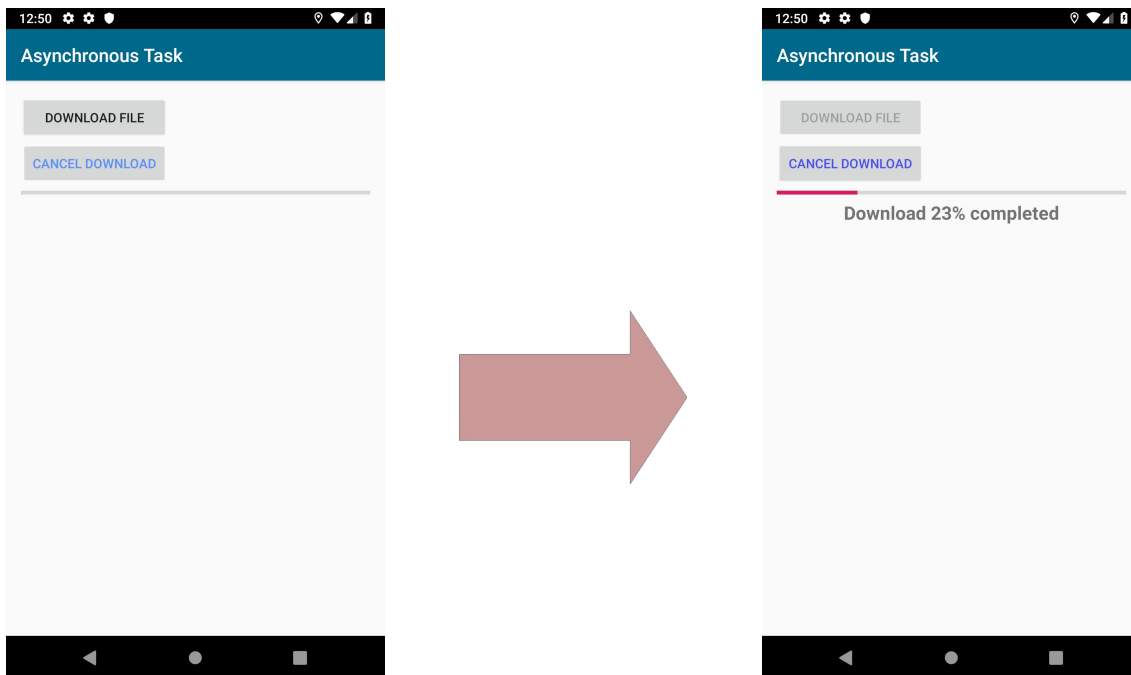
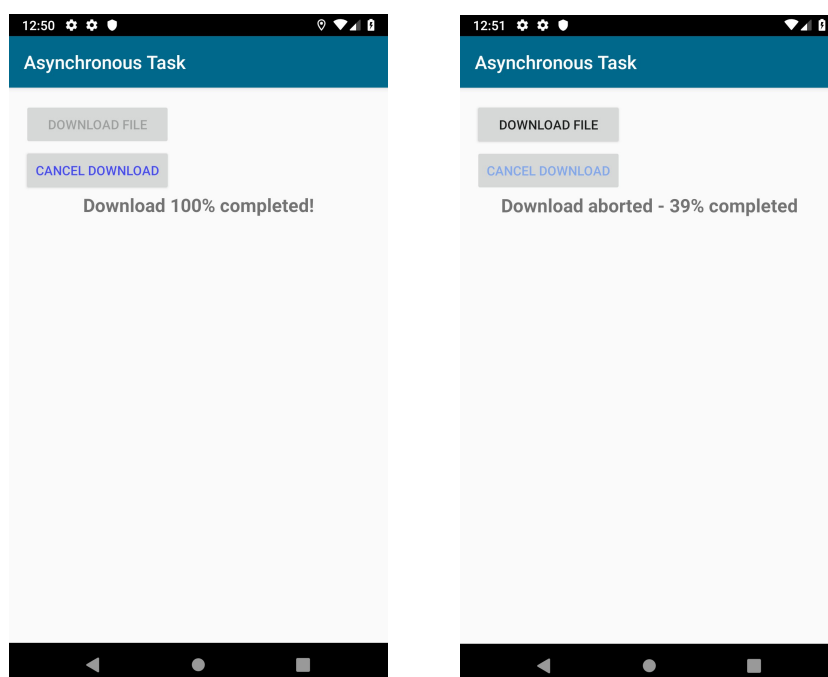


November 21st, once again can the students in the Aungier Street Lab please come over to Kevin Street (me in room 1-015 or Andrei in room 3-006) as your Lab Assistant will not be present today.

Last time we created an app that used **Room** to create a database that stored todos. This week we are going to be looking at using **AsyncTask** to create threads. How the app works is simple, when it launches, it displays two buttons, a **progress bar** and a text view.



Clicking “DOWNLOAD FILE” launches an AsyncTask that **fakes** the process of downloading a file. As this task proceeds the progress bar is **updated**. If the user decides to **abort** the download they can click on the “CANCEL DOWNLOAD” button. This stops the AsyncTask, **removes** the progress bar and displays how much of the download completed.



Project Set Up

Based on the same procedure used the last couple of weeks create a new project, you can call the application “My Seventh App”. The starter code consists of 3 files: `MainActivity.java`, `FakeAsync.java` and `activity_main.xml`. Include this code in your project. Should you have any difficulty with this, please **just ask your lab assistant**.

Part 1

Add the “DOWNLOAD FILE” and “CANCEL DOWNLOAD” buttons to the layout file.

Part 2

Complete the code in in the `doInBackground` method. This code should loop 100 times 1.) incrementing an int variable by 1, 2.) updating the progress bar with the new value and 3.) sleeping for a short time on **each iteration**.

Part 3

Complete the code in `onPreExecute`, `onProgressUpdate`, `onPostExecute` and `onCancelled`. The purpose of these callbacks is to **set the progress** on the progress bar and the text on the text view.

Part 4

Complete the code in the `handleClicks` method. The purpose of this code is to react to the user clicking the buttons i.e. If the “DOWNLOAD FILE” is clicked we want to do our FakeAsync task, if the “CANCEL DOWNLOAD” button is clicked we want to cancel the FakeAsync task.