AsyncTask Lab

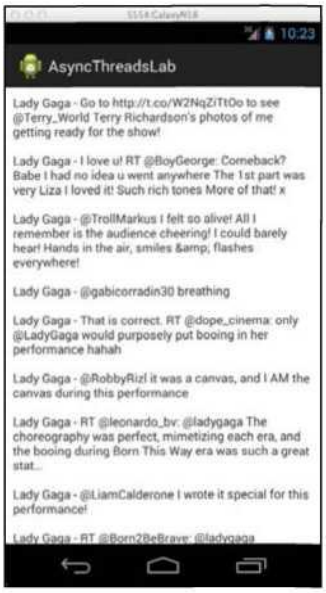
Objectives:

This week's lab aims to give you a better understanding of the AsyncTask class. Upon completing this lab, you should be able to define and use AsyncTasks to do work without blocking the application's main Thread. This Lab involves an app that displays simulated Twitter data. Its interface and code largely manage the selection and display of the data. You will focus on the DownloaderTaskFragment class, which is responsible for "downloading" the data (this offline version just reads data from a file) and preparing it for display.

The application comprises three Fragments: FriendsFragment, DownloaderTaskFragment and FeedFragment. The FriendsFragment displays the names of friends whose Twitter data can be displayed. The DownloaderTaskFragment starts an AsyncTask that reads the stored Twitter data and prepares it for display. The FeedFragment displays one friend's Twitter data. When the application's MainActivity begins running, it will set up the FriendsFragment and the DownloaderTaskFragment. At some point the user will see a ListView displaying the names of friends whose Twitter data can be displayed. Because the download process takes some time to complete, there is a period of time in which the FriendsFragment is visible, but there is no Twitter data to display. Therefore, the FriendsFragment is initially disabled, so that any user touches will be ignored. This is visible signaled to the user by greying out the FriendFragment's background.

Once the DownloaderTaskFragment has completed its work the FriendsFragment will be enabled.

After that, when a user touches a friend's name, the FeedFragment will be installed, displaying that friend's Twitter data.



The download package for this Lab contains a screencast showing the app in operation.