

## ITIS/ITCS 4180/5180 Mobile Application Development In Class Assignment 5

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### Basic Instructions:

1. In every file submitted you MUST place the following comments:
  - a) Assignment #.
  - b) Full name of the student.
2. This is an individual assignment and you will be responsible for doing this assignment by yourself.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will lose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Submission details:
  - a) Export your Android project and create a zip file which includes all the project folder and any required libraries.
  - b) The file name is very important and should follow the following format: **InClass05\_<YourLastName>.zip**. You should submit the assignment through Canvas: Submit the zip file.
6. **Failure to follow the above instructions will result in point deductions.**

## In Class Assignment 05 (100 Points)

In this assignment you will develop “CNN Technology News App”. The App displays news feeds from CNN News in Technology category. News feeds allow you to see when websites have added new content. You can get the latest headlines, as soon as it's published. In this assignment, you will learn how to parse XML news feeds, using threads, dynamic UI management and how to set app icon.

The activity displays a list of the news provided by CNN Technology News feed website at [http://rss.cnn.com/rss/cnn\\_tech.rss](http://rss.cnn.com/rss/cnn_tech.rss).

You can load the URL in <http://codebeautify.org/xmlviewer> for better understanding of XML you receive.

In this assignment we will build a single activity. In this activity you will display the retrieved news.

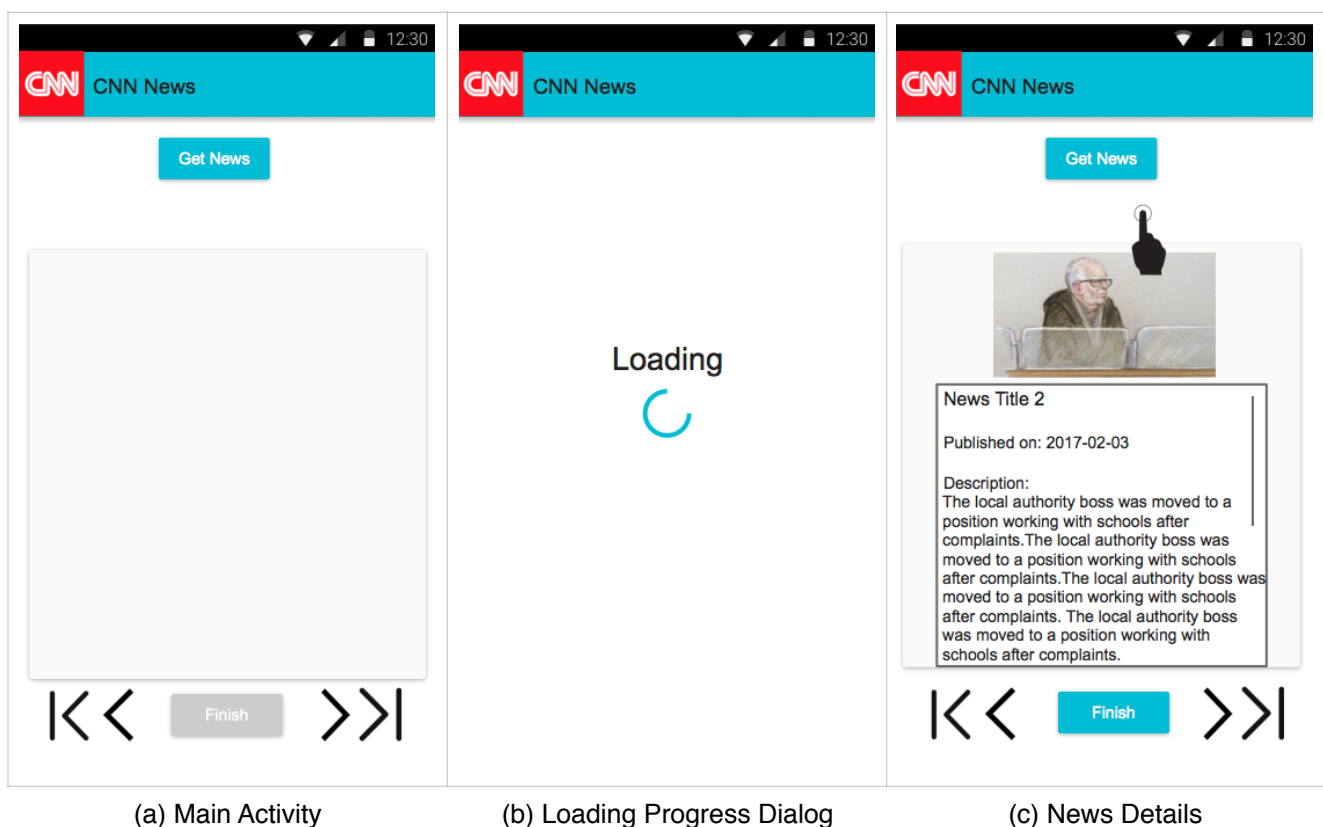


Figure 1, App Wireframe

## Main Activity (100 Points)

You need to implement the following:

1. You need to set CNN icon as your app icon and should display app icon on your action bar as it is in wireframes.
2. You need to have a Button labeled as “Get News”. Clicking on “Get News” button, get the XML data from the URL mentioned above.
3. Use a thread pool (or AsyncTask) to communicate with the CNN Technology News API and to parse the result. Do not use the main threads to download the results.
4. Parse the XML stream using either XMLPullParser or SAXParser and return the result to the News List.
5. While loading and parsing the XML Result, your UI should look as it is in Figure 1(b).
6. For each news item retrieve the title, description, pubDate, and a square image url (media:content).
7. You need to display the image using a separate AsyncTask.
8. You need to display a ScrollView having all other details, as it is in Figure 1(c).
  - i. Title: get it from “title”.
  - ii. Published on: get the date from “pubDate”. Use Simple Date format.
  - iii. Description: get it from “description”.
9. Next you will implement a navigation pane. It will have five buttons:
  - i. The leftmost button is the indicator of first news.
  - ii. The second button indicates the previous news.
  - iii. The Finish button is to close the app.
  - iv. The fourth button indicates the next news.
  - v. The rightmost button indicates the last news.
10. At first, the buttons on the navigation pane will be inactive. It will only activate when you click on “Get News” button.
11. After clicking on Get News button you should parse the news array and display it using the navigator pane.

### Note:

1. You can use the **SimpleDateFormat** in Android to format the retrieved dates. <http://developer.android.com/reference/java/text/SimpleDateFormat.html>.
2. Create separate java classes to implement AsyncTask/Thread pools.

**Good Luck!**