

NEWS PHONE APPLICATION

Build Instructions

COP 4331 Section 1
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GROUP 8

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BUILD INSTRUCTIONS

The following build instructions assume that the developer is using Eclipse, with ADT, and that the appropriate Android SDK (Windows, Mac, Linux) has been installed. For more help, please see the **Quick Start** section below.

For **other IDE** instructions, please visit <http://developer.android.com/guide/developing/other-ide.html>.

1 Before You Begin

NewsApp's intended target is **Android 1.6**. Therefore, it is **REQUIRED** that **SDK Platform Android 1.6, API 4, revision 3** be an installed package on your development computer. However, NewsApp **WILL RUN** with **Android 1.6 or HIGHER**, so your AVD may target **Android 1.6 or HIGHER**.

2 Required Libraries

The NewsApp project is dependent on the **jsoup-1.3.3 or HIGHER** java library. A copy can be obtained from <http://ucf.karlbanks.com/cop4331/deliverables.php> (in the SourceCode.zip package) or directly from <http://jsoup.org/download>.

Download the .jar file to the desired location on your file system. Instructions on how to reference the file will be detailed in **Configuring Build Path** section below.

3 Developing in Eclipse, with ADT

1. Download the SourceCode.zip file from <http://ucf.karlbanks.com/cop4331/deliverables.php>.
2. Extract the file contents to the desired location on your file system.
3. Launch Eclipse IDE.
4. Click **File > Import...** from the Eclipse menu bar.
5. Select **General > Existing Projects into Workspace**
6. Click on the **Next >** button.
7. Click on the **Browse...** button under **Select root directory**.
8. Navigate to the location where you saved the NewsApp project.
9. Select the NewsApp folder and click the **OK** button
10. The project should be selected in the **Projects** table.
11. Make sure the field **Copy projects into workspace** is selected.
12. Click on the **Finish** button.
13. The NewsApp project should now be open in your Package Explorer.
14. Please see the **Configuring Build Path** section below before continuing.
15. If you haven't already created an AVD, see the **Creating an AVD** section below.
16. To run NewsApp in the emulator, please see the **Running on the emulator** section below.
17. To run NewsApp on a device, please see the **Running on a device** section below.

4 Quick Start

The steps below provide an overview of how to get started with the Android SDK. For detailed instructions, start with the [Installing the SDK](#) guide.

4.1 Prepare Your Development Computer

Read the [System Requirements](#) document and make sure that your development computer meets the hardware and software requirements for the Android SDK. Install any additional software needed before downloading the Android SDK. In particular, you may need to install the [JDK](#) (version 5 or 6 required) and [Eclipse](#) (version 3.4 or 3.5, needed only if you want develop using the ADT Plugin).

4.2 Download and Install the SDK Starter Package

Select a package and download it to your development computer. To install the SDK, simply unpack the starter package to a safe location and then add the location to your PATH.

4.3 Install the ADT Plugin for Eclipse

Set up a remote update site at <https://dl-ssl.google.com/android/eclipse/>. Install the Android Development Tools (ADT) Plugin, restart Eclipse, and set the "Android" preferences in Eclipse to point to the SDK install location. For detailed instructions, see [ADT Plugin for Eclipse](#).

4.4 Add Android Platforms and Other Components to Your SDK

Use the Android SDK and AVD Manager, included in the SDK starter package, to add one or more Android platforms (for example, Android 1.6 or Android 2.2) and other components to your SDK. If you aren't sure what to add, see [Which components do I need?](#) To launch the Android SDK and AVD Manager on Windows, execute SDK Setup.exe, at the root of the SDK directory. On Mac OS X or Linux, execute the android tool in the <sdk>/tools/ folder. For detailed instructions, see [Adding SDK Components](#).

5 Configuring Build Path

If installed, the proper Android library (**Android 1.6**) will automatically be referenced after the NewsApp project is imported into your Eclipse workspace. However, two or more error messages will prevent the application from running. The errors are due to a missing library (**jsoup-1.3.3 or HIGHER**). The following instructions detail how to provide a reference to the missing jsoup library:

1. Right click on the NewsApp project in the Package Explorer.
2. Select **Build Path > Configure Build Path...**
3. Under the **Libraries** tab, select the missing jsoup-1.3.3.jar file.
4. Click on the **Edit...** button.
5. Navigate to the location where you saved the jsoup .jar file.
6. Select the jsoup-1.3.3.jar or HIGHER.
7. Double click or click on the **OK** button to select the file.
8. Click on the **OK** button to finish referencing the jsoup library.
9. The error messages should disappear and NewsApp can now be run.

6 Creating an AVD

An Android Virtual Device (AVD) is a device configuration for the emulator that allows you to model real world devices. In order to run an instance of the emulator, you must create an AVD.

To create an AVD from Eclipse:

1. Select **Window > Android SDK and AVD Manager**, or click the Android SDK and AVD Manager icon in the Eclipse toolbar.
2. In the *Virtual Devices* panel, you'll see a list of existing AVDs. Click **New** to create a new AVD.
3. Fill in the details for the AVD.
Note: Be sure to define a target for your AVD that satisfies NewsApp's Build Target (**Android 1.6 or HIGHER**).
4. Click **Create AVD**.

Your AVD is now ready and you can close the SDK and AVD Manager, create more AVDs, or launch an emulator with the AVD by selecting a device and clicking **Start**.

For more information about AVDs, read the [Android Virtual Devices](#) documentation.

7 Running on the Emulator

Before you can run NewsApp on the Android Emulator, you **must** [create an AVD](#).

To run (or debug) NewsApp, select **Run > Run** (or **Run > Debug**) from the Eclipse menu bar. The ADT plugin will automatically create a default launch configuration for the NewsApp project. Eclipse will then perform the following:

1. Compile the NewsApp project (if there have been changes since the last build).
2. Create a default launch configuration (if one does not already exist for the project).
3. Install and start NewsApp on an emulator (or device), based on the Deployment Target defined by the run configuration.

If debugging, NewsApp will start in the "Waiting For Debugger" mode. Once the debugger is attached, Eclipse will open the Debug perspective.

To set or change the launch configuration used for NewsApp, use the launch configuration manager. See [Creating a Launch Configuration](#) for information.

8 Running on a Device

Before you can run NewsApp on a device, you must perform some basic setup for your device:

- Declare NewsApp as debuggable in the manifest
- Enable USB Debugging on your device
- Ensure that your development computer can detect your device when connected via USB

Read [Setting up a Device for Development](#) for more information.

Once set up and your device is connected via USB, install NewsApp on the device by selecting **Run > Run** (or **Run > Debug**) from the Eclipse menu bar.

*Portions from Android's Dev Guide: <http://developer.android.com/guide/developing/eclipse-adt.html>