

# PhoneGap Enterprise Code Bundle

The book this repository is for is undergoing active development. As such, this repository should not be considered stable.

This repository stores the code for the book entitled *PhoneGap Enterprise* published by Packt Publishing. You can purchase the book at [Packt's Site](#). If you obtained this code package from Packt, you may wish to download the package from GitHub in order to receive the most recent changes. The package is available at <https://github.com/kerishotts/PhoneGap-Enterprise-Code-Bundle>.

Note: This book does not cover the basics of PhoneGap, rather it covers issues specific to the enterprise. If you need to learn about the basics of PhoneGap, you may want to purchase *PhoneGap 3.x Mobile Application Development Hotshot* from [Packt Publishing](#).

There are several directories in this code package – they are described in further detail below:

- `database` : files related to the database backend (Oracle 11gR2 XE)
- `tasker-srv` : files related to the middle tier node.js web service (requires Node to run)
- `digital-ocean` : files related to the setup of the database and application server using Digital Ocean
- `ch5` : chapter 5 project: communication between PhoneGap and the backend
- `ch6` : chapter 6 project: responding to application events / storage options
- `ch7` : chapter 7 project: push notifications
- `tasker` : chapter 8 project: final Tasker version with full presentation, push notifications, etc.

## Cordova / PhoneGap Requirements

In order to build the mobile projects in this package, you'll need to install Cordova / PhoneGap. We won't go over how to install Cordova in this document – you can refer to Chapter 1 of [PhoneGap 3.x Mobile Application Development Hotshot](#), or you can refer to [http://cordova.apache.org/docs/en/edge/guide\\_cli\\_index.md.html#The%20Command-Line%20Interface](http://cordova.apache.org/docs/en/edge/guide_cli_index.md.html#The%20Command-Line%20Interface).

To build/run the code supplied for the book, the following software is required (divided by platform where appropriate):

### For iOS

Windows	Linux	OS X
		IDE: Xcode 5.1+
N/A	N/A	OS: OS X 10.8.4+
		SDK: iOS 6+

## For Android

Windows	Linux	OS X
IDE: Eclipse 3.6.2 or higher or Android Studio		
OS: XP or newer	Any modern distro supporting: GNU C library 2.7+, if 64-bit, must be able to run 32-bit apps. Ubuntu must be 8.04+	OS X 10.5.8+
Java*: JDK 6 or higher		

\* A JRE is not sufficient.

## For all platforms

Windows	Linux	OS X
Apache Cordova / Adobe PhoneGap 3.6+		
ANT 1.8+		

## About each chapter and project

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### Chapter 1: PhoneGap Enterprise Mobility

There is no code for this chapter.

### Chapter 2: Building the Data Store and Business Logic

This chapter focuses on building the data store and business logic. The code for this chapter is located in `/data-base`. Several scripts are contained within that will create a suitable data store. Sample data is also provided so that you can test your app later on.

For this chapter, you'll need an Oracle Database 11gR2 instance – XE, Standard One, Standard, or Enterprise will do. XE is free and somewhat limited in enterprise features, but it works just fine as a development instance or even a small production server. You'll need to install the database server first, and then run the scripts in the specified order to recreate the system.

For instructions on how to install the data store and business logic, see the `README.md` file located within the `/database` folder.

### Chapter 3: Securing PhoneGap Apps

There is no code for this chapter.

## Chapter 4: Building the Middle Tier

In chapter 4, we cover building a simple web server using Node.js. This server provides a RESTful-like interface between the database and app clients. This server can be installed on the same server as the database, or it can be installed on a separate server.

In order to install the middle tier, you'll need to install Node.js and copy the files from the `tasker-srv` directory to a working location on the web server. You'll need to install all the requisite packages that the server depends upon (`npm install`). In order to do so, you'll need to install the Oracle Instant Client on your machine so that the server can communicate with your Oracle database. You'll also need to generate an SSL certificate for your server as explained in Chapter 3.

Installation instructions are available in the `README.md` file in the `tasker-srv` directory.

## Chapter 5: Communicating between the Mobile and Middle Tier

This project focuses on communicating with the API designed in chapter 4. The app itself is *not* a complete Cordova app – it is designed solely to show how to send `XMLHttpRequest`s and parse the API responses. When running the app, you should only expect to see raw API responses from the App requests to the API.

The project as delivered in this code package is *not* a complete Cordova project. You'll need to execute the following commands in order to create a working Cordova Project:

```
$ cordova create com.packtpub.pgech5 TaskerCH5 my-ch5 --copy-from /path/to/code/package/ch5
$ cd my-ch5
$ cordova platform add ios android
$ cordova plugin add https://github.com/EddyVerbruggen/SSLCertificateChecker-PhoneGap-Plugin.git
$ cordova prepare
```

By default, the app will attempt to communicate with `pge-as.photokandy.com`, which is the host I used for testing. For your own testing, you'll want to redirect this to your web server. You should alter the hostname contained within the code in `my-ch5/www/js/app/main.js` to point to your web server instead. If you don't, you'll inadvertently contact my server... which is probably not your intent.

## Chapter 6: Application Events and Storage

This project focuses on handling application and network events such as `pause`, `resume`, `online`, and `offline`. It also discusses a third-party SQLite plugin.

The project as delivered in this code package is *not* a complete Cordova project. You'll need to execute the following commands in order to create a working Cordova Project:

```
$ cordova create com.packtpub.pgech6 TaskerCH6 my-ch6 --copy-from /path/to/code/package/ch6
$ cd my-ch6
$ cordova platform add ios android
$ cordova plugin add https://github.com/EddyVerbruggen/SSLCertificateChecker-PhoneGap-Plugin.git
$ cordova plugin add org.apache.cordova.globalization
$ cordova plugin add org.apache.cordova.device
$ cordova plugin add org.apache.cordova.network-information
```

```
$ cordova plugin add com.photokandy.localstorage
$ cordova plugin add https://github.com/brodysoft/Cordova-SQLitePlugin
$ cordova plugin add com.shazron.cordova.plugin.keychainutil
$ cordova prepare
```

As with Chapter 5, this project does not implement a complete application, but is simply a demo app showing some of the technologies discussed in the chapter.

## Chapter 7: Push Notifications

This chapter focuses on sending and receiving push notifications with Cordova. It is not a complete project; it displays a very simple `alert` upon receipt of a push notification. In order to send push notifications, you'll need to follow the directions present in Chapter 7 in order to set up a <boxcar.io> account. In order to send an example push, see `ch7/sendPush.py`.

The project as delivered in this code package is *not* a complete Cordova project. You'll need to execute the following commands in order to create a working Cordova Project:

```
$ cordova create com.packtpub.pgech7 TaskerCH7 my-ch7 --copy-from /path/to/code/package/ch7
$ cd my-ch7
$ cordova platform add ios android
cordova plugin add https://github.com/EddyVerbruggen/SSLCertificateChecker-PhoneGap-Plugin.git
cordova plugin add org.apache.cordova.globalization
cordova plugin add org.apache.cordova.device
cordova plugin add org.apache.cordova.network-information
cordova plugin add com.photokandy.localstorage
cordova plugin add https://github.com/brodysoft/Cordova-SQLitePlugin
cordova plugin add com.shazron.cordova.plugin.keychainutil
cordova plugin add https://github.com/boxcar/PushPlugin
$ cordova prepare
```

*Note:*

You'll need the Boxcar SDK, but we did have to modify the Boxcar.js file supplied in the SDK in order to fix a few bugs. It's possible Boxcar will have updated their SDK to fix these issues, but if not, you'll want to use the `/boxcar/Boxcar.js` file in this package instead.

### Additional iOS Configuration

You'll need to open the project in Xcode at least once so that you can download the Push Notification entitlements you defined in the chapter. Open Xcode, navigate into the project's `platforms\ios` directory, and there should be an `.xcodproj` file. Open it, and then open *Xcode > Preferences > Accounts*. Select your Apple Developer account, and then click *View Details*. Once you do, a new screen should appear with a refresh button near the bottom-left. Click that and wait. After the process is complete you should have your push notification entitlements in the bottom list box (you may need to scroll to see them). Close out of the dialogs, and then proceed to build the project. After this point you can build the project using the Cordova CLI.

### Additional Android Configuration

As per Boxcar's documentation:

On Android, the Storage API used by SDK needs to be enabled manually in one of config files. To do

that, the XML file `platform/android/res/xml/config.xml` must have additional clause

```
<plugin name="Storage" value="org.apache.cordova.Storage" />
```

directly in the `<widget>` element.

## Chapter 8: Presentation Techniques

This chapter focuses on the varied components that go into a final Cordova app. This app is the final project, and represents a complete implementation of the Tasker app.

The project as delivered in this code package is *not* a complete Cordova project. You'll need to execute the following commands in order to create a working Cordova Project:

```
$ cordova create com.packtpub.tasker Tasker my-tasker --copy-from /path/to/code/package/tasker
$ cd my-tasker
$ cordova platform add ios android
$ cordova plugin add https://github.com/EddyVerbruggen/SSLCertificateChecker-PhoneGap-Plugin.git
$ cordova plugin add org.apache.cordova.globalization
$ cordova plugin add org.apache.cordova.device
$ cordova plugin add org.apache.cordova.network-information
$ cordova plugin add com.photokandy.localstorage
$ cordova plugin add https://github.com/brodysoft/Cordova-SQLitePlugin
$ cordova plugin add com.shazron.cordova.plugin.keychainutil
$ cordova plugin add https://github.com/boxcar/PushPlugin
$ cordova prepare
```

Be sure to follow the BoxCar integration steps from Chapter 7, and modify the hostname as in Chapter 5.

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```
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```

