Appendix A

Installing the stack

This appendix covers

- Installing Node.js and npm
- Installing Express globally
- Installing MongoDB

Before you can build anything on the MEAN stack you'll need to install the software to run it. This is really easy to do on Windows, OSX and the more popular Linux distributions such as Ubuntu.

As Node.js underpins the stack, that's the best place to start. Node.js now also ships with npm included, which will be very useful for installing some of the other software.

A.1 Install Node.js and npm

The best option for Windows and Mac OSX users is to simply download installers from the Node.js website. This location always has the latest version as maintained by the Node.js core team. Linux users can also download binaries if you're comfortable working with them. Downloads for all of these OS's are available here http://nodejs.org/download/

OSX and Linux users can also install Node.js from package managers. Package managers do not always have the latest version, so be aware of that. A particularly out-of-date one is the popular *apt* system on Ubuntu. There are instructions for using a variety of package managers – including Homebrew for OSX and a fix for apt on Ubuntu – on Joyent's Node.js wiki on GitHub https://github.com/joyent/node/wiki/Installing-Node.js-via-package-manager

A.1.1 Verify installation by checking version

Once you have Node.js and npm installed you can check the versions you have with a couple of terminal commands.

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898
Licensed to Van Luu Dao <webcreative.plus@gmail.com>

```
$ node --version
$ npm --version
```

These will output the versions of Node.js and npm that you have on your machine.

A.2 Install Express globally

In order to be able to create new Express applications on the fly from the command line, you need to install it globally so that is accessible anywhere on your machine. You can do this from the command line, using npm. In terminal you simply run the following command:

```
$ npm install -g express
```

When this has finished installing you can verify it by checking the version number from terminal.

```
$ express –version
```

If you run into any problems with this, the documentation for Express is available on its website http://expressjs.com/

A.3 Install MongoDB

MongoDB is also available for Windows, Mac and Linux. There are some direct downloads available for Windows, depending on which version you are running. The easiest way to install MongoDB for Mac is to use the Homebrew package manager, and there are also packages available for a few Linux distributions. On the Mac, if you prefer, you can also choose to install MongoDB manually. The same goes if you are running a version of Linux that doesn't have MongoDB available in a package.

Detailed instructions about all of the above options are available in the MongoDB online documentation http://docs.mongodb.org/manual/installation/

A.3.1 Running MongoDB as a service

Once you have MongoDB installed, you'll probably want to run it as a service, so that it automatically restarts whenever you reboot. Again, there are instructions for doing this in the MongoDB installation documentation.

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898
Licensed to Van Luu Dao <webcreative.plus@gmail.com>

Appendix B

Installing & preparing the supporting cast

This appendix covers

- Adding Twitter Bootstrap and a custom theme
- Installing Git
- Installing a suitable command line interface
- Signing up for Heroku
- Installing Heroku toolbelt

There are several technologies that can help with developing on the MEAN stack, from front-end layouts to source control and deployment tools. This Appendix covers the installation and setup of the supporting technologies used through Getting MEAN.

B.1 Twitter Bootstrap

Bootstrap is not really installed as such, but rather added to your application. This is as simple as downloading the library files, unzipping and placing them into the application.

The first step of course is to download Bootstrap. You can get this from getbootstrap.com. Make sure that you download the distribution zip and not the source. At the time of writing Bootstrap is on version 3.0.2 and the distribution zip contains three folders: css, fonts and js.

Once you have it downloaded an unzipped, the files need to be moved into the *public* folder in your Express application. To keep the files together, and the top level clean create a new folder called `bootstrap` in the public folder and copy the unzipped files into there. The public folder in your application should now look like Figure B.1.

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898
Licensed to Van Luu Dao <webcreative.plus@gmail.com>

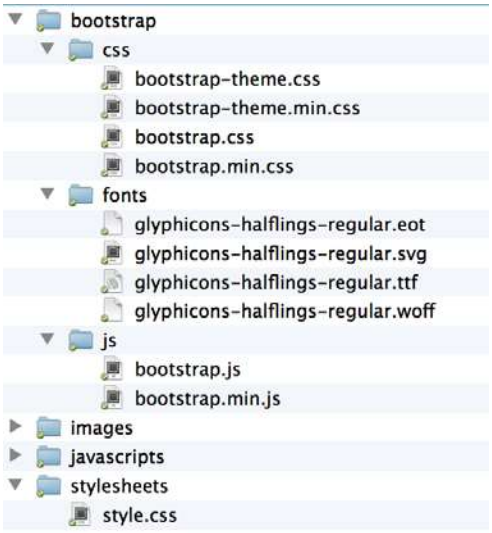

Figure B.1 The structure and contents of the public folder after Boostrap has been added

That will give you access to the default look and feel of Bootstrap, but you probably want your application to stand out from the crowd a bit. You can do this by adding in a theme.

B.1.1 Getting the 'Amelia' theme

The Loc8r application in Getting MEAN uses a bootstrap theme called Amelia from Bootswatch. You can download both the original CSS file and the minified version from http://bootswatch.com/amelia/. Once they are downloaded, so that you don't overwrite the original Bootstrap files rename them to `amelia.bootstrap.css` and `amelia.bootstrap.min.css`.

You can now copy these into the `/public/bootstrap/css` folder in your application.

B.1.2 Tidying up the folders

If you wish you can tidy up your bootstrap folder by removing some of the duplicates. You'll notice that there are readable and minified versions of the CSS and JavaScript files, and also a pair of default bootstrap-theme CSS files. Unless you're going to hack around in the files you only really need the minified versions.

B.2 Install Git

The source code for this book is managed using Git, so the easiest way to access it is with Git. Also, Heroku relies on Git for managing the deployment process and pushing code from your development machine into a live environment. So you need to install Git if you don't already have it.

You can verify if you have it with a simple terminal command:

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898
Licensed to Van Luu Dao <webcreative.plus@gmail.com>

```
$git --version
```

If this responds with a version number then you already have it installed and can move onto the next section. If not, then you'll need to install Git.

A good starting point for Mac and Windows who are new to Git is to download and install the GitHub user interface https://help.github.com/articles/set-up-git

You don't need a GUI though, and you can install just Git by itself using the instructions found on the main Git website http://git-scm.com/downloads

B.3 Install a suitable command line interface

You can get the most out of Git by using a command line interface, even if you have downloaded and installed a GUI. Some are better than others, and you can't actually use the native Windows command prompt, so if you're on Windows then you'll definitely need to run something else. Here's what I use in a few different environments:

- Mac OSX Mavericks and later: native terminal
- Mac OSX pre-Mavericks (10.8.5 and earlier): iTerm
- Windows: GitHub shell (this comes installed with the GitHub GUI)
- Ubuntu: native terminal

If you have other preferences – and the Git commands work – then by all means use what you already have and you're used to.

B.4 Set up Heroku

Getting MEAN uses Heroku for hosting the Loc8r application in a live production environment. You can to this too – for free – so long as you sign up, install the toolbelt and log in through terminal.

B.4.1 Sign up for Heroku

In order to use Heroku you will need to sign up for an account of course. For the purposes of the application you'll be building through the book a free account will be fine. Simply head over to www.heroku.com and follow the instructions to sign up.

B.4.2 Install Heroku toolbelt

Heroku toolbelt contains the Heroku command line shell and a utility called Foreman. The shell is what you'll use from terminal to manage your Heroku deployment, and Foreman is very useful for making sure what you've built on your machine is setup to run properly on Heroku. You can download the toolbelt for Mac, Windows and Linux from toolbelt.heroku.com

B.4.3 Login to Heroku in terminal

Once you have signed up for an account and installed the toolbelt on your machine, the last step is to login to your account from terminal. Enter the following command:

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898
Licensed to Van Luu Dao <webcreative.plus@gmail.com>

```
$ heroku login
```

This will prompt you for your username and password, and will most likely generate a new SSH public key and upload it for you. Now you're all setup and ready to go with Heroku.

©Manning Publications Co. We welcome reader comments about anything in the manuscript - other than typos and other simple mistakes. These will be cleaned up during production of the book by copyeditors and proofreaders.
http://www.manning-sandbox.com/forum.jspa?forumID=898