

Building a Site with Node and Express

[Node.js \(http://nodejs.org/\)](http://nodejs.org/) has grown increasingly in popularity over the past couple years. With its adoption by large companies like Microsoft, Yahoo, PayPal, eBay, and many more, now is a great time to jump into Node development.

What We'll Be Building

In this booklet, we'll be looking at how to create a simple 3-page website using Node and its most popular framework, [ExpressJS \(http://expressjs.com/\)](http://expressjs.com/).

Here's a picture of the site we'll be creating. Nothing fancy from a design perspective. Our main focus will be on the Node and Express side of things and we'll just use [Twitter Bootstrap \(http://getbootstrap.com/\)](http://getbootstrap.com/) for quick styling.

IMAGE HERE

By building a sample site using Node and Express, we will learn many things including:

- Node concepts, best practices, and getting started
- Express concepts, best practices, and getting started
- Routing applications with Express
- How to use [EJS \(http://embeddedjs.com/\)](http://embeddedjs.com/) (a JavaScript templating engine) to template views
- How to pass data and variables from server to HTML

We'll have 3 pages with 2 different layout types:

- Full Width Page (**Home** and **Contact**)
- Page with Sidebar (**About**)

By using a full page and a sidebar layout, we'll be able to see how we can template our views. This will benefit us because we don't have to rewrite our view files over and over. [DRY \(http://en.wikipedia.org/wiki/Don't_repeat_yourself\)](http://en.wikipedia.org/wiki/Don't_repeat_yourself) is the way to go!

Now that we know what we are building, lets get started with the fun stuff, the actual programming!

Starting our Application

Let's start out by looking at the file structure for our application. This is a good way to get a top-down view and now what files we will need. Here are the files we have:

```
- public      (folder that will hold css/js/images)
- views      (will have our view files)
----- partials (the repeatable things for our site (head, header, footer))
----- pages  (the main pages for our site (home, about, contact))
```

- `package.json` (where we start our Node/Express application)
- `server.js` (where we configure Express and define site routes)

When starting a Node application, we will always start with the `package.json` file. This is where we define the main parts of our application like its name, version, author, license, and dependencies.

Let's create our `package.json` file with the minimal attributes needed to start our application.

```
{
  "name": "node-express-site",
  "main": "server.js",
  "dependencies": {
    "express": "~4.8.5",
    "ejs": "~1.0.0"
  }
}
```

Installing Express

As you can see from the above `package.json` file, we have defined:

- **name:** The name of our application
- **main:** The file that we will use to start up our application.
- **dependencies:** The dependencies that we will need (Express and EJS).

By adding `express`, `ejs`, and the version we want to the dependencies, we can now bring in both of these packages by running:

```
npm install
```

PICTURE HERE

Now we have **defined our application** and **have the dependencies we need**. Let's start configuring our application using Node and Express in our `server.js` file.

Starting a Node and Express Server

Setting Up Express Routes

Using the Express Router

Using EJS as our View Engine

Setting Up The Base Site and Styles

Templating Our View Files

Passing Data to Our Views

Conclusion and Further Reading