build a

HTTP WEB API

w/ nodejs & mongodb

tweet tweet @donnfelker

github.com/donnfelker/workout-tracker

agenda

nodejs
express
mongoose
mongodb

beginner | intermediate

what is **node**js ?

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications.

Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

-nodejs.org

standing on the shoulders of giants

Joyent

amazon
web services™

rackspace

AppHarbor

heroku

Windows Azure™

nodejitsu

cloudno.de

how do I build a web api with nodejs?

basic tools

blank slate

express
web application framework for node

express()

Create an express application.

```javascript
var express = require('express');
var app = express();

app.get('/', function(req, res){
  res.send('hello world');
});

app.listen(3000);
```

express()

Create an express application.

```javascript
var express = require('express');
var app = express();

app.get('/', function(req, res){
  res.json(200, { message : "Hi!" });
});

app.listen(3000);
```

persistence

what is mongoDB ?

MongoDB (from "humongous") is a scalable, high-performance, open source NoSQL database.

records are stored known as 'documents' and resemble json

```
{
  "_id": "4ff09aabf2c99f6cac000006",
  "description": "21-15-9 of Thrusters and Pull Ups",
  "name": "Fran",
  "date_created": "2012-07-01T18:44:59.580Z"
}
```

express
nodejs

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mongoose
mongodb

mongoose

```javascript
var mongoose = require('mongoose');
var db = mongoose.createConnection('localhost', 'workout_tracker');

var schema = mongoose.Schema({ name: 'string' });
var Workout = db.model('workout', schema);

var w = new Workout({ name: 'Fran' });
w.save(function (err) {
  if (err) // ...
  res.end('meow');
});
```

building the web api

new express project

create a folder for the app

```
mkdir workout-tracker
```

create a package.json file
with these contents

```json
{

  "name": "workout-tracker",
  "description": "workout tracker app",
  "version": "0.0.1",
  "private": true,
  "dependencies": {
    "express": "3.x"
  }
}
```
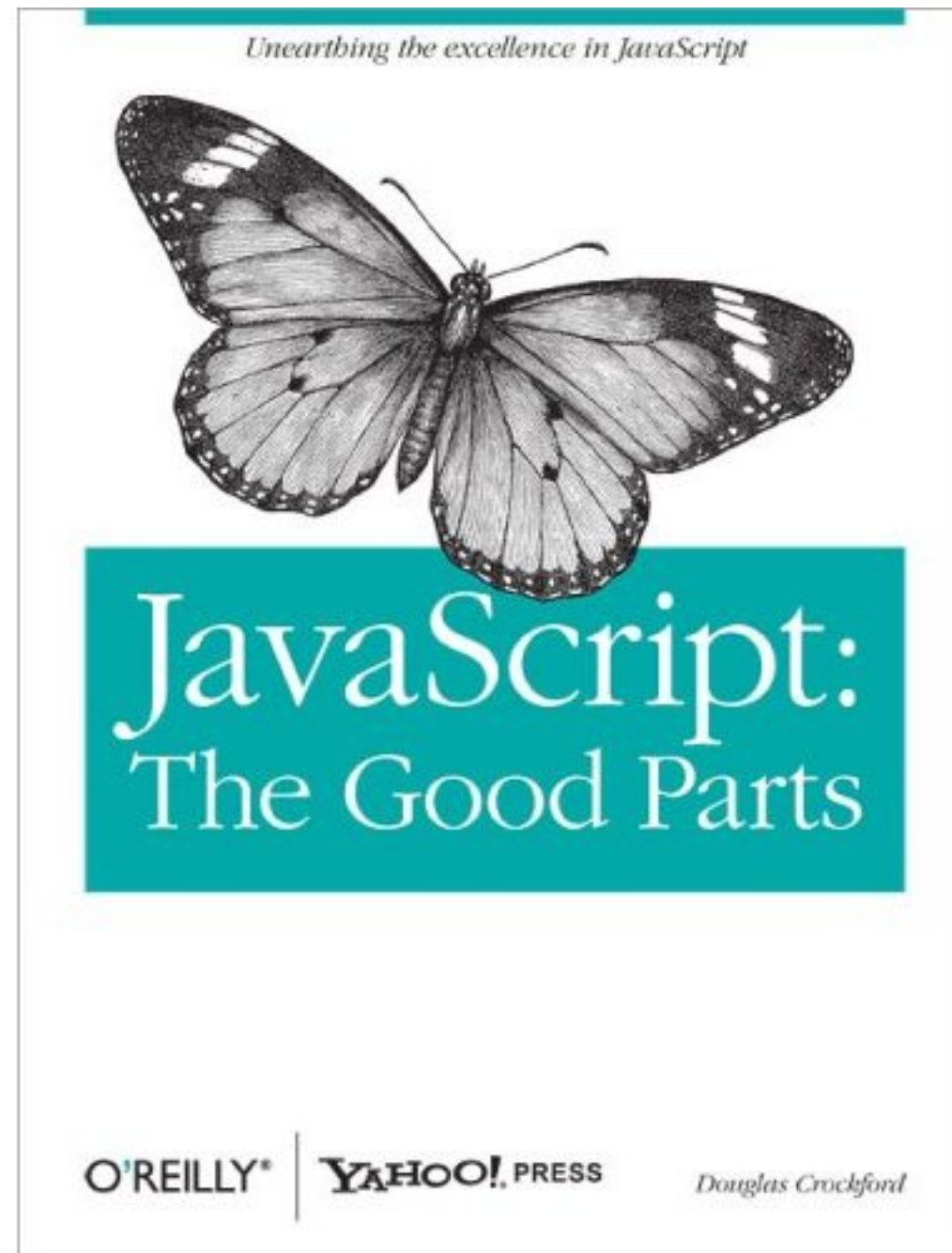
install dependencies and
install express

```
$ npm install
```

```
$ npm ls
workout-tracker@0.0.1 /private/tmp
└─┬ express@3.0.0beta7
  ├── commander@0.6.1
  ├─┬ connect@2.3.9
  │ ├── bytes@0.1.0
  │ ├── cookie@0.0.4
  │ ├── crc@0.2.0
  │ ├── formidable@1.0.11
  │ └── qs@0.4.2
  ├── cookie@0.0.3
  ├── debug@0.7.0
  ├── fresh@0.1.0
  ├── methods@0.0.1
  ├── mkdirp@0.3.3
  ├── range-parser@0.0.4
  ├─┬ response-send@0.0.1
  │ └── crc@0.2.0
  └─┬ send@0.0.3
    └── mime@1.2.6
```

ok stop - code time

learn js
the right way

code	github.com/donnfelker/workout-tracker
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	MongoHub