THE mean STACK

{ JavaScript all the way }

Simona Clapan

simona@leanometry.com

WHAT DOES IT M.E.A.N.?

Full-stack JavaScript solution that helps you build fast, robust and maintainable production web applications using:

WHY M.E.A.N.?

SAME LANGUAGE, SAME OBJECTS.

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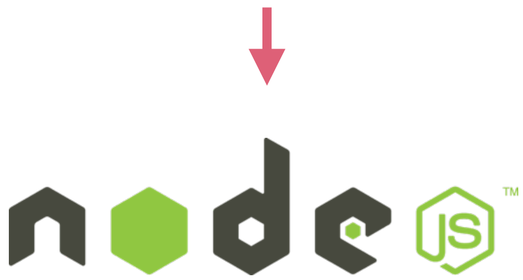
“username” : “symonny” }



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WHO USES NODE ?

LinkedIn

Microsoft

Storify

YAHOO!

UBER

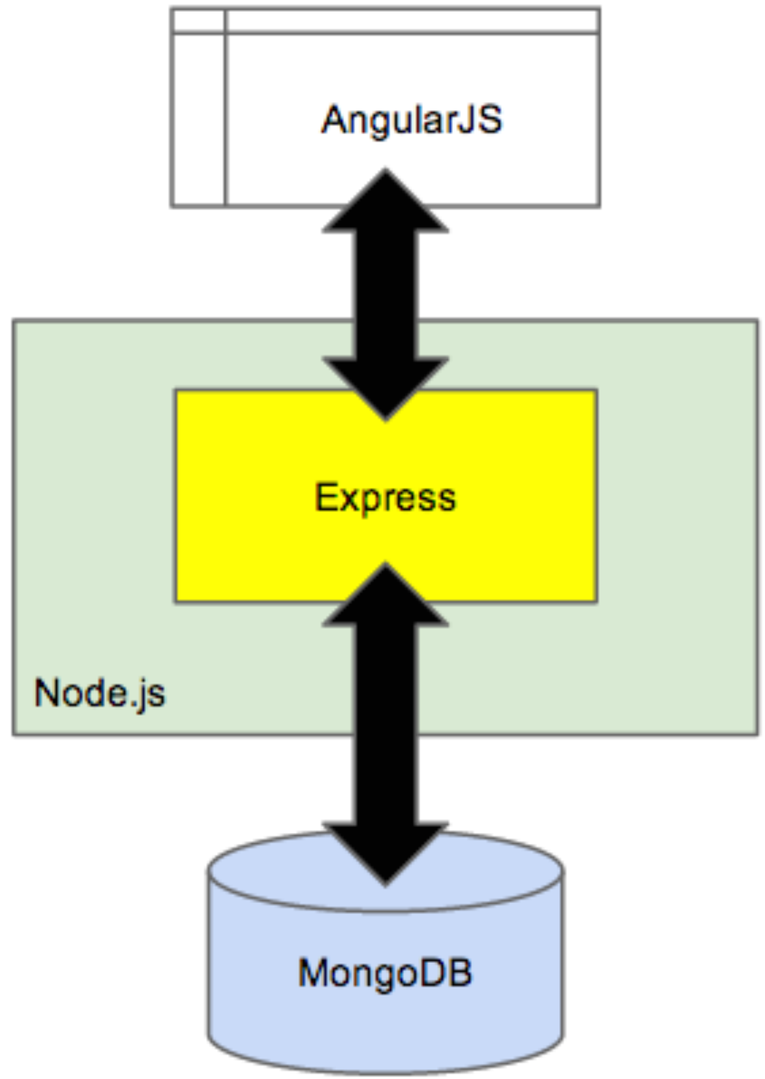
nodejitsu

yammer

PayPal

37signals

TYPICAL APP ARCHITECTURE



- NoSQL cross-platform document-oriented database system
- JSON-like documents with dynamic schemas
- Easier & faster to send data between client and server (b/c data saved in JSON format)
- Local Install:
  - MongoDB: http://www.mongodb.org/
- MongoDB-as-a-Service:
  - Modulus: https://modulus.io
  - Mongolab: https://mongolab.com

express

- A lightweight framework used to build single and multi-page web applications in Node.JS

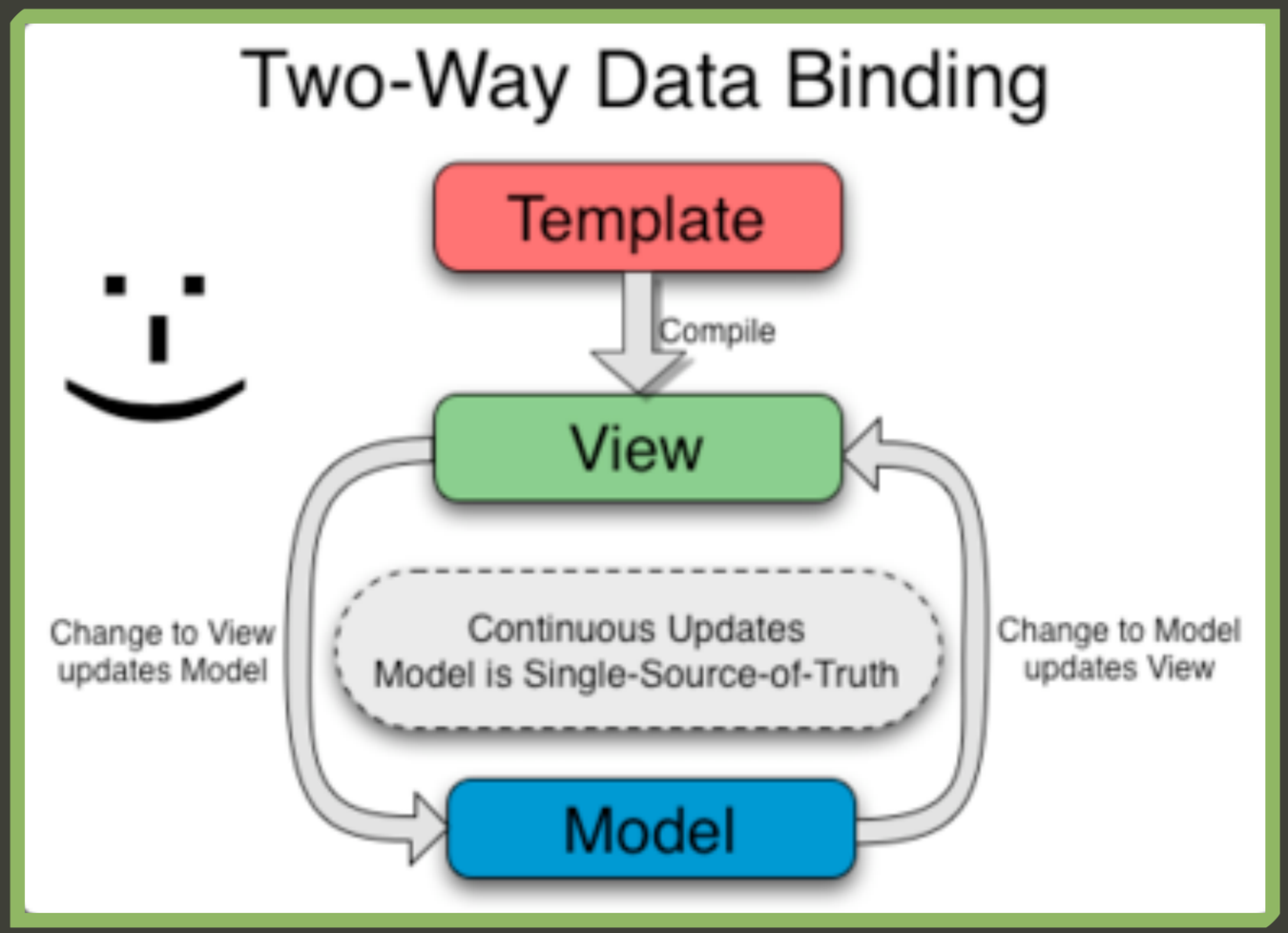
- Wrapper for the core Node.js HTTP module objects.

- Provides functions for everything you may need to build a modern web server

- Learn More: http://expressjs.com

ANGULARJS by Google

- Client-side MVC framework: http://angularjs.org
- Problem: Updating page without reload
- Solution: Angular.js declarative, 2-way data binding



- Server-side JavaScript platform built on V8 engine
- Helps building highly scalable and concurrent applications rapidly
- Makes multithreaded server easy
- Event based concurrency
- Easy to modify and maintains apps, due to piped modules
- Install from http://nodejs.org

APPS SUITED FOR NODE.JS

- E-Commerce
- Payment Processing
- Social Media
- Realtime Services
- Media Applications
- Enterprise Services

THE TOOLBOX

A NodeJS Module Package Manager

- https://www.npmjs.org/
- Over 80,000 packages
- To install a module:
  - npm install [module-name]
  - - g - flag for global

MORE TOOLS

- **Grunt** - used to build, preview and test a project, employing tasks curated by Yeoman and grunt-contrib.
  http://gruntjs.com
  - npm install -g grunt-cli
- **Bower** - used for dependency management, allowing the download and management of front-end package.
  http://bower.io
  - npm install -g bower

MORE TOOLS

- **Yeoman** - used to build, preview and test a project. http://yeoman.io
  - npm install -g yo
- **Yeoman Generator** - plugin used to scaffold complete projects or useful parts
  - *install generator*: npm install -g [gener-name]
  - *run generator*: yo [gener-name] [params]

YEOMAN GENERATORS

- **generator-angular-fullstack:** AngularJS generator, integrated with support for Express with optional MongoDB integration

- **generator-meanstack:** MEAN stack generator, compatible with grunt-express

- **generator-mean-seed:** MEAN stack generator with batteries like Mongo, Express, Angular, Yeoman, Karma, and Protractor for automated testing.

YEOMAN GENERATORS

- **generator-klei** - MEAN stack generator uses Mongoose and Stylus
- **ultimate-seed-generator** - MEAN stack generator with batteries like Passport and Browserify

DEMO

Contacts

https://github.com/leanometry/codecamp

Angular Components: 1 of 3

- **Directives:** allows you to extend HTML to answer the needs of web applications. Directives let you specify how your page should be structured for the data available in a given scope.

- **Data Binding:** allow defining the binding between the data in the scope and the content of the views.

- **Filters:** allow modifying the way data is displayed.

- **Partial Views:** used specially in single page applications.

Angular Components: 2 of 3

- **Modules:** Apps are structured in modules that can depend on other modules and can contain controllers, services, directives and filters

- **Controllers** contain the application behavior. Controllers populate the scope with all the necessary data for the view. Using proper separation of concerns, controllers should never contain anything related to the DOM.

- **Scope** is used to link the controllers and the views to which they are binded

Angular Components: 3 of 3

- **Services:** allow reusing code that should be abstracted from controller. Services can be injected in controllers or in other services.

- **Dependency Injection:** retrieves some elements of the application that should be configured when the module will be loaded

- **Events:** $broadcast and $emit

THANK YOU!

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Resources

- https://mongolab.com
- https://github.com/angular-app/angular-app
- http://www.packtpub.com/angularjs-web-application-development/book
- https://www.nodejitsu.com/

- Node.js - http://nodejs.org
- MongoDB - http://mongodb.org
- MongoDB Training - http://education.10gen.com
- Mongoose - http://http://mongoosejs.com/
- Express - http://expressjs.com
- AngularJS - http://angularjs.org
- Bower - http://bower.io
- Yeoman - http://yeoman.io
- Grunt - http://gruntjs.com