Programming with NodeJS

Lesson 3: Time to get MEAN

Febuary 21st, 2017

Summary of last week

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Today, we are going to attempt a chat server using the MEAN stack.

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- LEMP - Linux-NGINX-MySQL-PHP
- WISA - Windows-IIS-msSQL-ASP.NET

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Note, each of these are javascript-based. This is one of the major advantages of the MEAN stack, all software we will write using this stack will be in the same language.

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MongoDB is classified as a NoSQL DBMS and is not similar to the SQL-family of DBMSs. Instead, MongoDB stores all its information as "loose" records called documents, wherein each of these documents follow a prewritten schema.
The format of these documents is in JSON. What this means is that we can simply pass a JSON to a MongoDB server and it will be able to store it, without having to change it to a certain format or something.

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For more info, check out last weeks lesson.

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It injects itself into html:

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Example

N - NodeJS

NodeJS is the backend that brings it all together. It lets express run on top of it and lets MongoDB communicate with the outside world.

The MEAN stack altogether

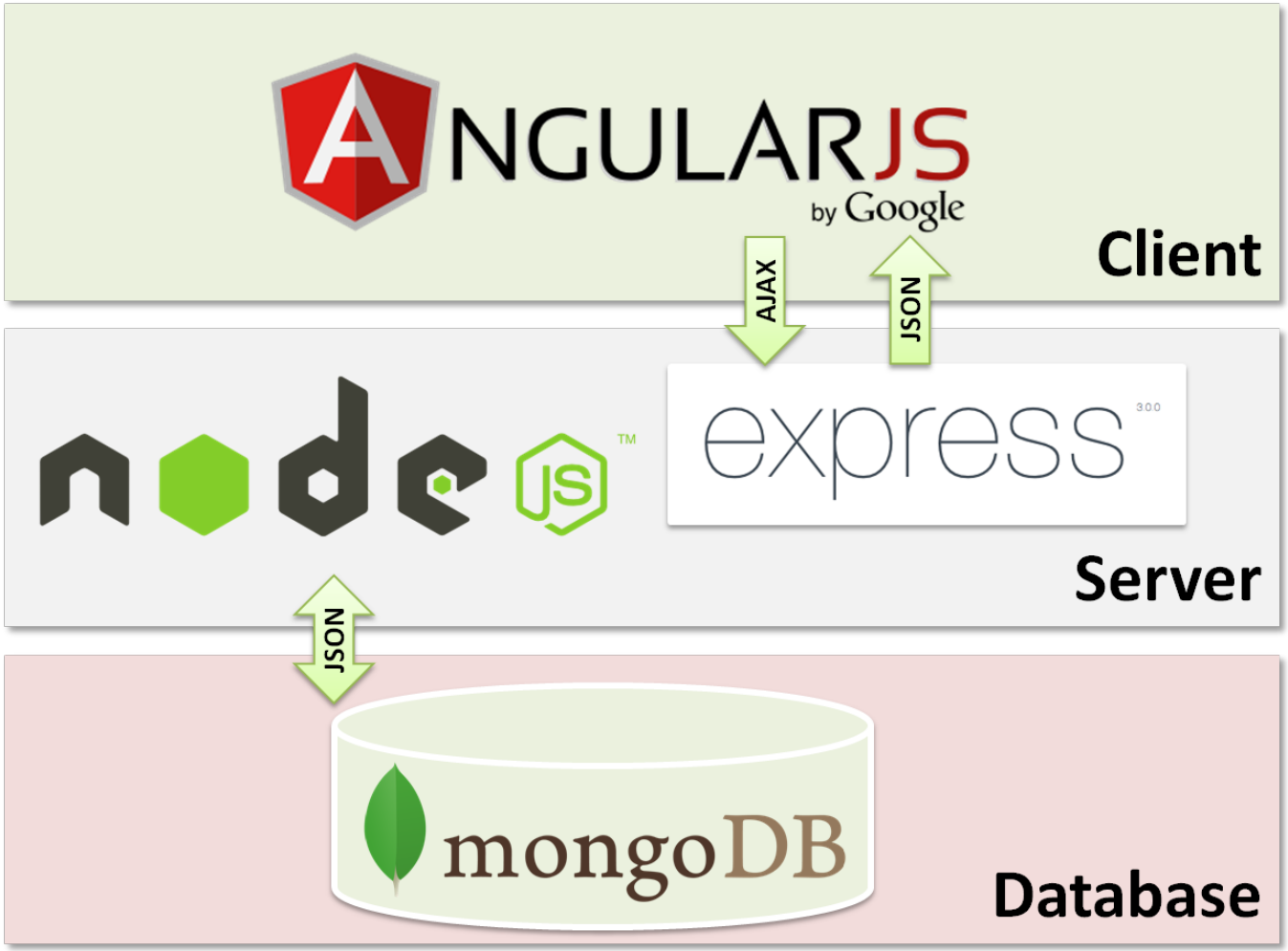

Figure: Innocently stolen from: https://github.com/jeaensilva

A quick note before the chat server

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1. Mongoose - An interface that allows NodeJS to communicate with a MongoDB server
2. Socket.IO - A web socket frontend and NPM which allows us to communicate with a browser in real time (as opposed to by sending HTTP requests)

Time to begin!

Some handy links: Socket.IO server side - https://github.com/socketio/socket.io
Socket.IO client side - https://github.com/socketio/socket.io-client
MongoDB download - https://www.mongodb.com/download-center
Bower install info - https://bower.io/ (or if you have npm: sudo npm install -g bower)
(All other dependencies are installed via NPM or bower: npm install –save mongoose express ejs socket.io && bower install –save angular socket.io)

That's all!

To summarise:

- We have learnt about each element in the MEAN stack
- We have learnt about socket IO and mongoose
- We have built our own chat box web app!

That's it folks!

Source code plus lecture slides will be available online soon after the lesson.
If you are new to HackSocNotts, please join us on *http://hacksocnotts.slack.com*.
If you have any questions, feel free to ask now or over slack.
Hope you enjoyed!