Introduction

Wednesday, November 30, 2016
10:27 AM

Node.js is a server-side framework build on Google Crome's JS runtime.
Node.js is a application development platform that allows us to create standalone application development using JS.

REPL -> Read Eval Print Loop

```
  ➢ function person( f , l ) { this.firstname = f; this.lastname = l }
undefined
  ➢ var chk = new person('me','mine');
undefined
  ➢ chk
person {firstname: "me", lastname: "mine"}
```

Command prompt

- global
- process
- require
- module

Crome Console

- window
- document

Installation

Tuesday, November 29, 2016
12:40 PM

Install nodejs from nodejs site
Check version for nodejs & npm

- node --version
- npm -- version

  NPM - > back end package management system
  Bower -> Front end package management system

Install Express.js web frame work for Node

- npm install -g express

-g -> global

- express --version

New application creation:

- express new <application name>

- app.js -> is the entry point of an application (Config)
- Package.json -> third party library and its version to be installed
- Public -> img/css/etc...
- Routes -> controller code & URL handlers
- Views -> templetes to render html or other markup

Step 1: Get into the application directory
Step 2: Get and install depended library to the local dir

- npm install

  Node_module dir will be created with default template modules

  - express
  - jade

  This can be delete at any time and rebuild by running npm install

Step 3: To start the application run

- npm start
  - Note: npm looks from server.js as entry point of the application. So rename the app.js to server.js.
  - Normally the startup script is configured in package.json file.

Package.json	"scripts": {"start": "node app.js"}

Step 4: Goto browser

localhost:3000

Step 5: skip the startup by ^C.

Other Process

Step 1:

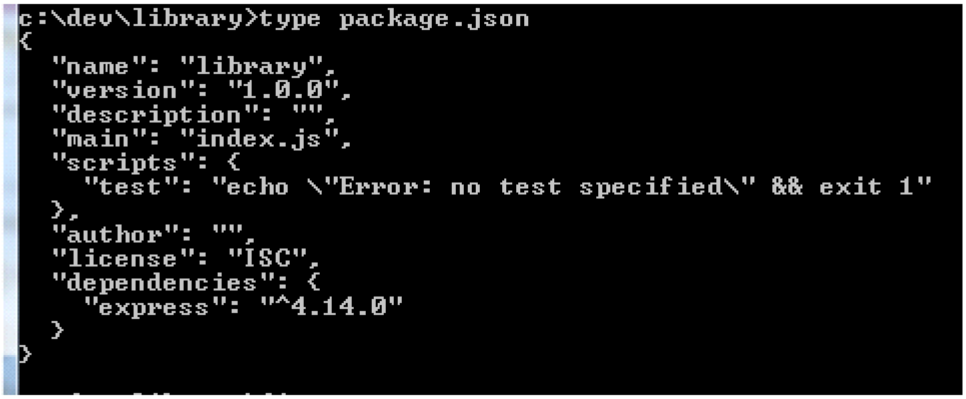
npm init

Which will create the package.json for us

Step 2:

Install express locally

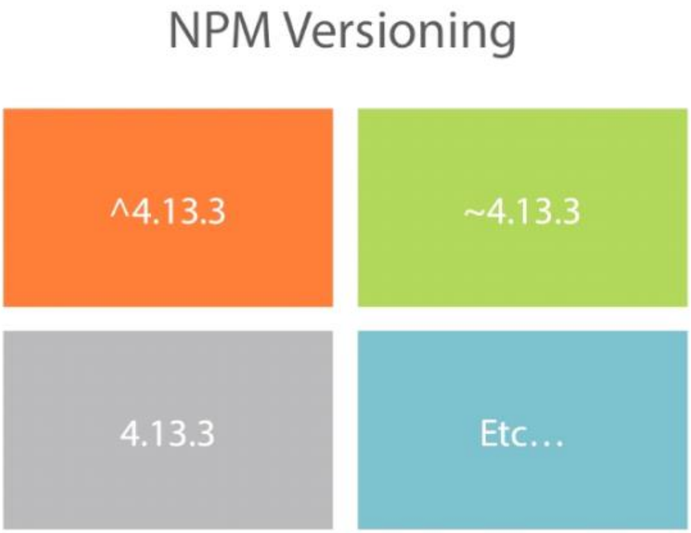
npm install express --save



```
c:\dev\library>type package.json
{
  "name": "library",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC",
  "dependencies": {
    "express": "^4.14.0"
  }
}
```

^ - get largest major version when install / upgrade npm is ran

~ - get largest minor version when install / upgrade npm is ran



NPM Versioning

^4.13.3

~4.13.3

4.13.3

Etc…

Step 3: Setting up Express

app.js

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

var port = 5000;

app.listen(5000,function(err)
{
        console.log('running server on port' + port);
});
```

Start server by giving:

```
$node app.js
```

====

Step 4:

Modify package.json

```
 "scripts": {
   "test": "echo \"Error: no test specified\" && exit 1",
   "start": "node app.js"
  },
```

Start Server by giving:

```
$npm start
```

Step 5: Goto Broswer hit the port that is configured in app.js

localhost:5000

================================

Other Process

Install express-generator
Run > express projectname
BOOM the setup is ready :)

Now go to the dir and give npm install to install all dependent packages
And run the application

```
SET DEBUG=socialaggregator:* & npm start
```

Coffee

Tuesday, November 29, 2016
3:36 PM

```
npm install coffee-script --save
```

Create a file C:\Users\240110\.npmrc

```
proxy = http://240110:<pwd>@proxy.cognizant.com:6050
strict-ssl = false
```

-global

- npm list -g

-localpackage

- npm list

GIT

Wednesday, November 30, 2016
4:35 PM

c:\Users\240110\.gitconfig

```
[http]
        proxy = http://240110:passoword@proxy.cognizant.com:6050
        sslVerify = false
```

```
git config --global http.proxy http://240110:passoword@proxy.cognizant.com:6050
git config --global http.sslVerify false
```

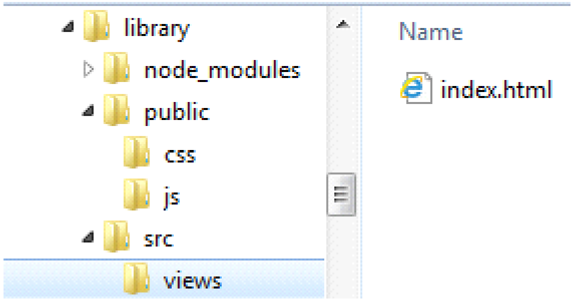
- git init
- git remote add test https://github.com/Prakashiq/test.git
- git add *
- git status
- git commit -m "comment"
- git pull test master
- git push test master

Library demo

Tuesday, January 10, 2017
11:59 AM

Get theme template from Bootstrapzero.com

Download a template and extract in project dir
Move all JS & CSS folder into public dir
Move index.html under src/views



Bower

Tuesday, January 10, 2017
12:29 PM

Package manager for the Web

- Installed with NPM
- Flat package hierarchy
- Very similar to NPM
- Bower.json -> for all dependency

define where your brow package need to be loaded. Having it in /public/lib you don’t need to publish the file individually.

```
.browerrc
{
      "directory": "public/lib"
}
```

```
bower install font-awesome --save
```

```
bower install bootstrap --save
```

```
bower init
```

Gulp

Tuesday, January 10, 2017
8:11 PM

Task Manager for Web Projects

- Installed with NPM
- Easy to use
- Code base configuration
- Package based

Code Quality enforcement - JS Hint
Code Style - JSCS

```
npm install jshint -g
npm install jscs -g
npm install gulp -g
```

```
c:\dev\library> gulp
[21:11:03] Local gulp not found in c:\dev\library
[21:11:03] Try running: npm install gulp
```

Install gulp locally too

```
npm install gulp --save-dev
```

Define your task in gulpfile.js

```
npm install --save-dev gulp-jshint gulp-jscs jshint-stylish jshint
```

inject-gulp in HTML

WireDep

Add below code in gulpfile.js

```
gulp.task('inject',function(){
    var wiredep = require('wiredep').stream;

    var options = {
        bowerJson: require('./bower.json'),
        directory: './public/lib'
    }

    return gulp.src('./src/views/*.html')
        .pipe(wiredep(options))
        .pipe(gulp.dest('./src/views'));
});
```

In hml have

```
<!-- bower:js -->
<!-- endbower -->
```

And remove the

```
<script src="../../public/lib/jquery/dist/jquery.js"></script>
        <script src="../../public/lib/bootstrap/dist/js/bootstrap.js"></script>
```

And run **gulp inject**

The process will inject the script in html file

To Add CSS inject

Have below code in bower.json

```
"overrides": {
     "bootstrap": {
        "main": [
           "dist/js/bootstrap.js",
           "dist/css/bootstrap.min.css",
           "less/bootstrap.less"
          ]
     },
     "font-awesome": {
        "main": [
           "less/font-awesome.less",
           "css/font-awesome.min.css",
           "scss/font-awesome.scss"
        ]
     }
   }
```

In hml have

```
<!-- bower:css -->
<!-- endbower -->
```

Install gulp-inject to inject the local js & css file

NodeMon

Tuesday, January 10, 2017
11:06 PM

Just use **nodemon** instead of node to run your code, and now your process will automatically restart when your code changes

gulp serve

Install gulp-nodemon --save-dev

```
gulp.task('serve', ['style','inject'], function(){
        var options = {
                script: 'app.js',
                delayTime: 1,
                env: {
                        'PORT':3000
                },
                watch:jsFiles
        };

        return nodemon(options)
                .on('restart',function(ev)
                        {
                                console.log('Restarting Services...');
                        });
});
```

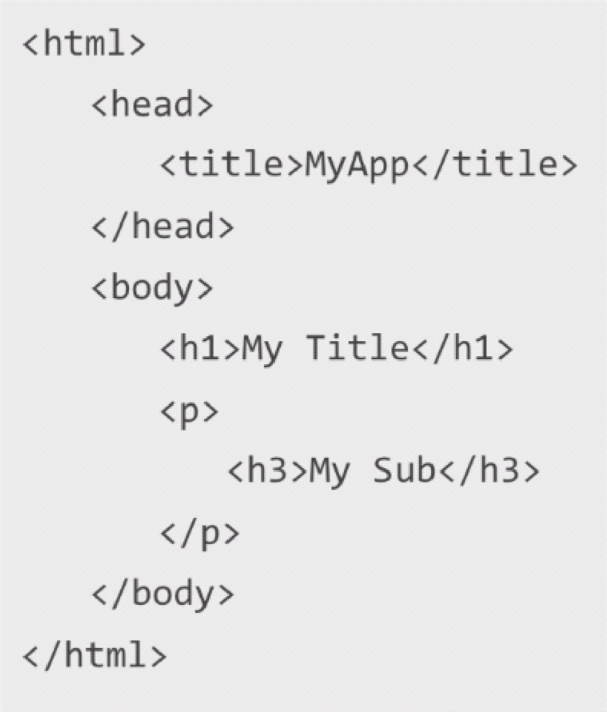
Templating Engine

Wednesday, January 11, 2017
10:38 AM

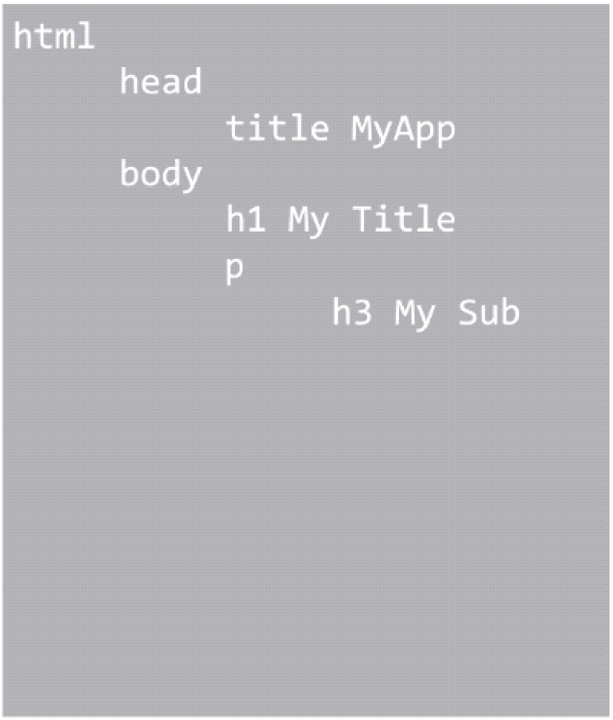
JADE

Runs Through Jade compiler

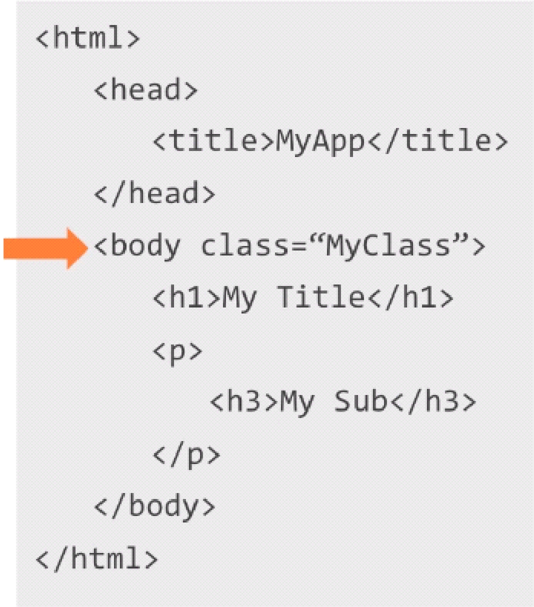
HTML	JADE



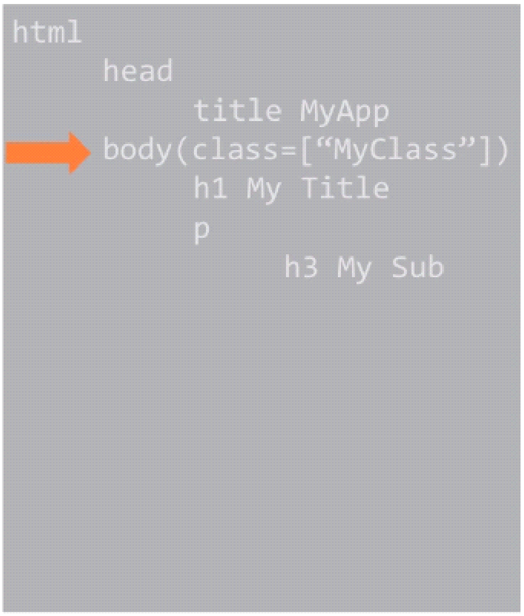
```
<html>
    <head>
        <title>MyApp</title>
    </head>
    <body>
        <h1>My Title</h1>
        <p>
            <h3>My Sub</h3>
        </p>
    </body>
</html>
```



```
html
    head
        title MyApp
    body
        h1 My Title
        p
            h3 My Sub
```



```
<html>
    <head>
        <title>MyApp</title>
    </head>
    <body class="MyClass">
        <h1>My Title</h1>
        <p>
            <h3>My Sub</h3>
        </p>
    </body>
</html>
```



```
html
    head
        title MyApp
    body(class=["MyClass"])
        h1 My Title
        p
            h3 My Sub
```

Handlebar

Minimalist Templating Engine
Operated as JS
Allow Variable to be passed

EJS

HTTP Service

Monday, January 16, 2017
12:55 PM

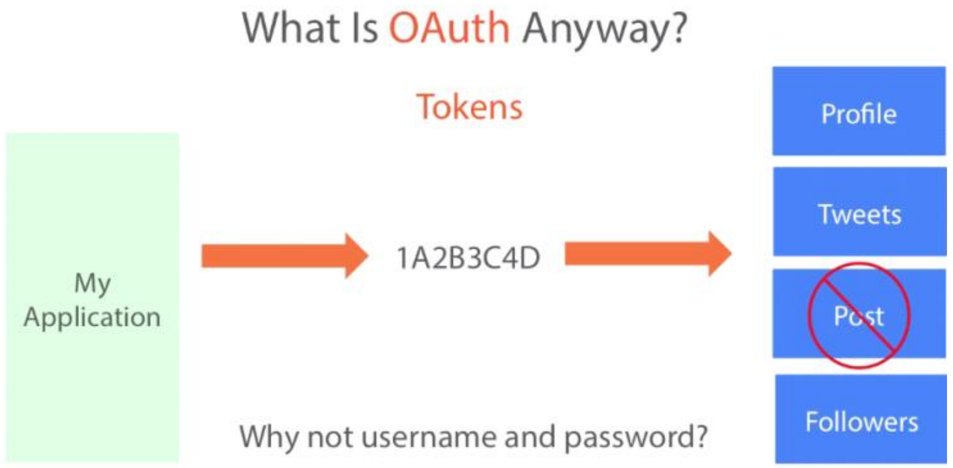
```
var http = require('http');

var handlerMethod = function(req,res)
{
        res.end("Hello World I'm done with Request");
};

http.createServer(handlerMethod).listen(5000,'localhost');

console.log("HTPP server listening on 5000 port");
```

Oauth

Tuesday, January 17, 2017
12:43 PM

Open Authentication
Authorization

Token



What Is OAuth Anyway?

Tokens

Why not username and password?