**Visual Studio Code with Node.JS**

**USING NODE JS**

--github.com/sayar/NodeMVA

https://www.youtube.com/watch?v=R9GYRBDqxI8&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ

Popular NPM Modules

underscore

async

request

lodash

commander

express

optimist

coffe-script

NPM - Node Package Manager

- Bundled and installed automatically with the environment

Frequent usage

- npm install - save package name

- npm update

How does it working

- Instal dependencies in the local node module folder

- In global mode , make a node module accessable to all

- can install from folder , tarbal and web etc

- can specify dev and optional depedencies

- NPM can also install the depedencies for a project by reading the package.json

Async Modules - utility module which provides straight forward , powerfull function for working with asynchronouse javascript

async.map

async.filter

async.parallel

async.series

Request Modules - Designated to be the simplest way possible to make http calls.

It supports HTTPS, streaming and follows redirect by default

Using Node.js with VS Code: 02 Introduction to Express

--github.com/sayar/NodeMVA

https://www.youtube.com/watch?v=GGrtjNbpEDo&index=2&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ

What is Express

Installing and using express

DEMO : Creating a simple REST API

Templating

What is Express?

<https://www.youtube.com/watch?v=GGrtjNbpEDo&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=2>

- express is a minimal, open source and flexible node.js web.app frameworks designed to make developing websites, web apss and API's much easier

- Support multiple templating engines to simplify generating HTML

Installing Express

- npm install express

- npm install jade

02 - Creating a Simple REST API

Explanation of Routes

- A router maps HTTP request to a callback

- HTTP request can be sent as GET/POST/PUT/DELETE etc

- URLs describe the location of targeted

- Nodes helps you map a HTTP GET request likeL:

- http://localhost:8888/index

- To a request handler (callback)

app.get('/index', function(req,res){});

DEMO

**Using Express for Multiple Pages**

D:\Litopascua\GitHub\NodeJSLearn1\NodeJSLearn1\11\_ExpressMultipleRoutes\routes

Go to NodeJSLearn1 main directory

Npm install express-generator –g

Express

Do

Npm intall

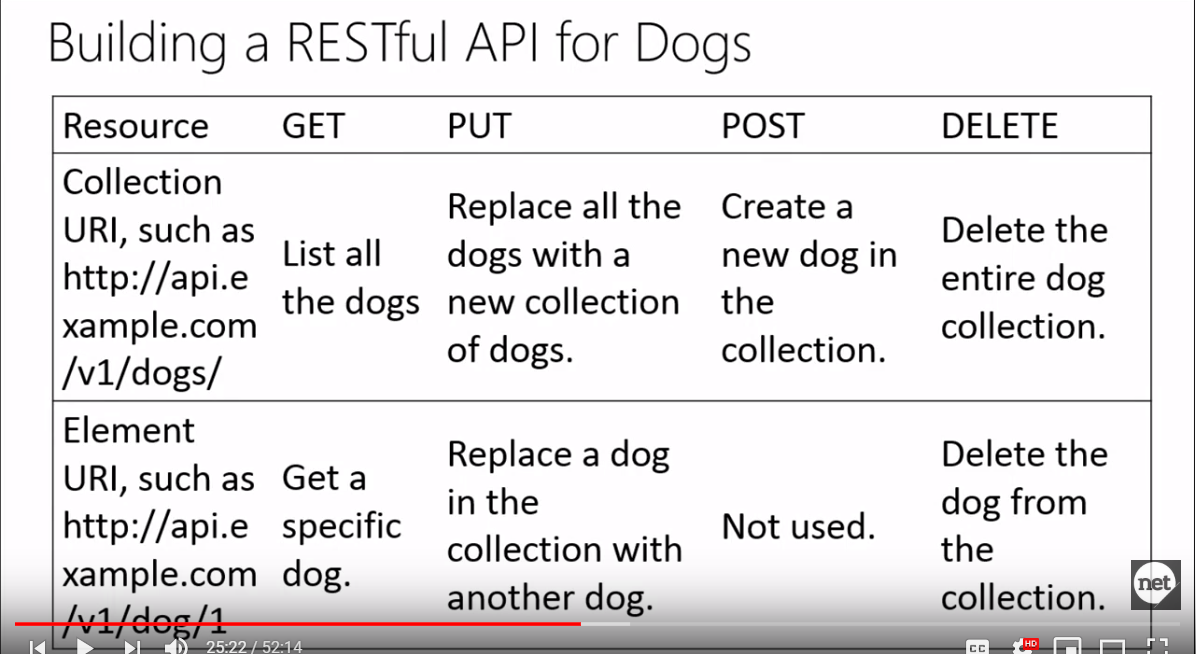
Npm start

Goto the

Localhost:3000

<https://www.youtube.com/watch?v=GGrtjNbpEDo&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=2>

BUILDING RESTful API for Dogs



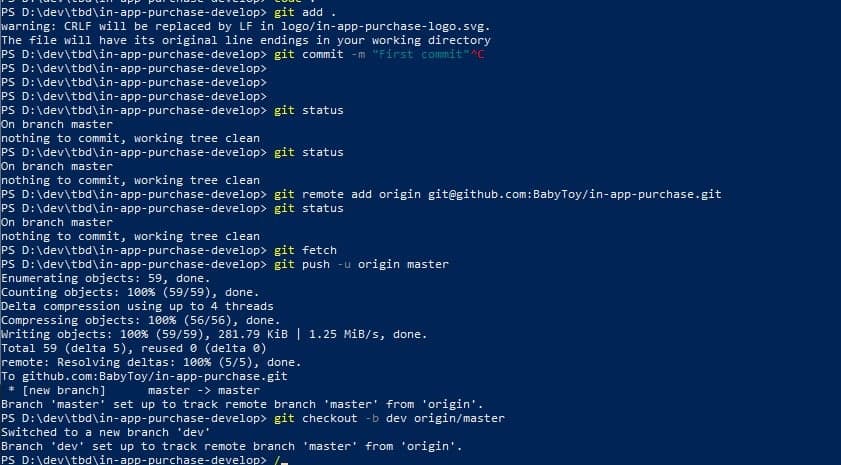
Express to Build a RESTful API

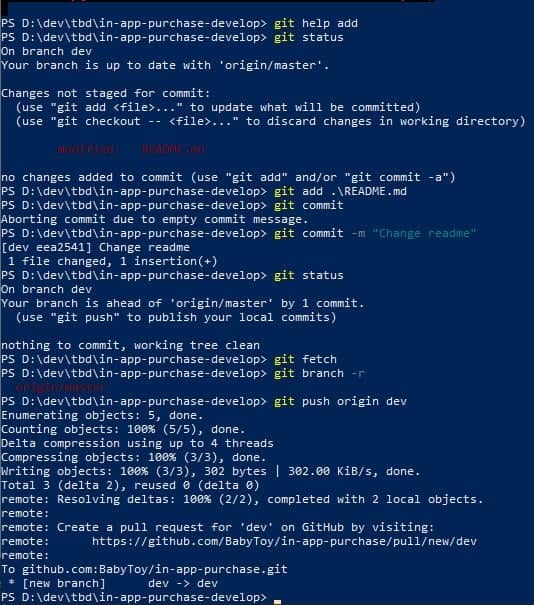
Resources

* Express Framework <http://expressjs.com>
* Intro to express
* Jade template <http://jade-lang.com/tutorials>
* Javascript and Jade templating

<http://www.slideshare.net/wearefractal/jade-javascript-templating>

* GitHub





Express to Build a RESTful API

Resources

<https://www.youtube.com/watch?v=GGrtjNbpEDo&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=2>

* Express Framework <http://expressjs.com>
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<https://code.tutsplus.com/tutorials/introduction-to-express--net-33367>

* Jade template <http://jade-lang.com/tutorials>
* Javascript and Jade templating

<http://www.slideshare.net/wearefractal/jade-javascript-templating>

use postman for Chrome

<https://www.youtube.com/watch?v=jAzmn3c3hac&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=3>

Using Node.js with VS Code: 03 Express and Databases

<https://www.youtube.com/watch?v=jAzmn3c3hac&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=3>

* MongoDB
* Data Driven Web Sites

Module Overview

* Discuss Data Driven Websites
* Discuss MongoDB
* Show you how to save to MongoDB using Mongoose

<https://www.youtube.com/watch?v=jAzmn3c3hac&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=3>

**MEAN** Stack – Mongo, Express, Angular and Node

About NoSQL databases

* **Not only SQL**
* Different types: Document based, graph databases etc.
* MongoDB, Couchbase, Hbase, Cassandra
* Object Oriented APIs
* Good for Large amounts of Data, can be scaled.

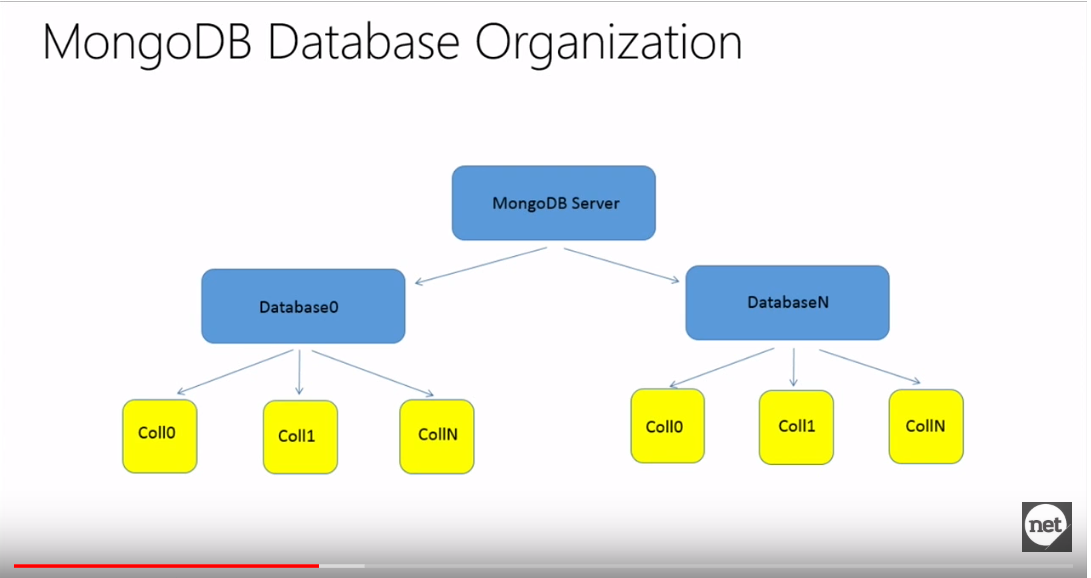
**Using MongoDB**

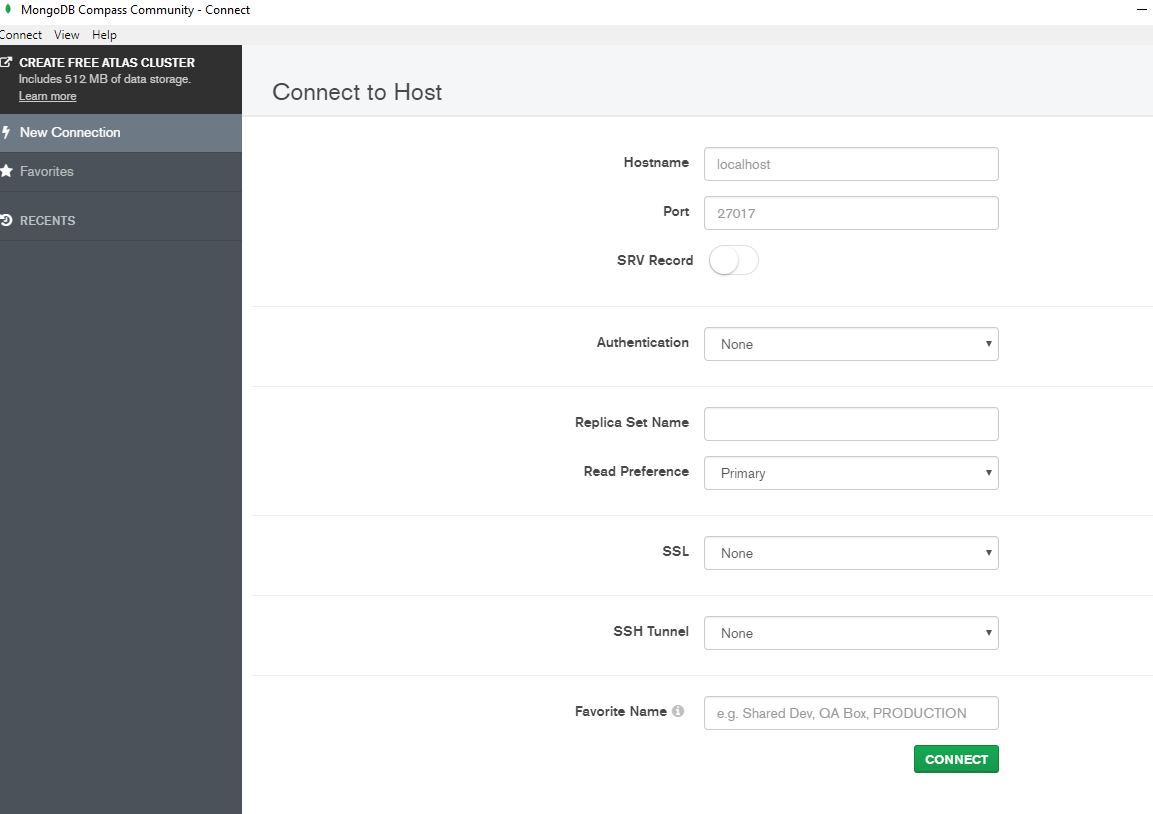
* Need to create mongoDB
* 3rd party source like MongoHQ or MongoLab
* Use the MongoLab add on in Azure
* Can customize and manually use via VM
* Need the MongoDB URI for connection

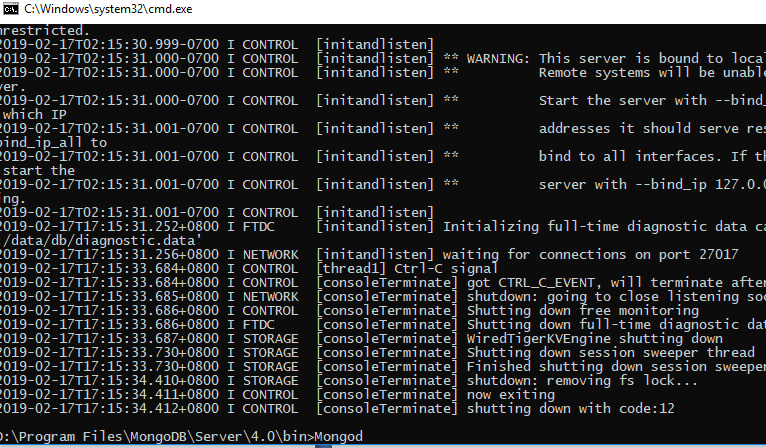
Running MongoDB on Local Machine

MongoDB Binaries

* The following binaries are installed in your machine
* Mongod – The database process
* Mongo – The Mongo CLI – used to connect
* Mongoimport – A data import utility







Loading Test Data

* Using mongoimport
* Load bulk data from CSV or JSON files
* Fastest way t o load data into mongodb without having to write code

Github source

<https://github.com/sedouard/mongodb-mva>

<https://github.com/sedouard/mongodb-mva/tree/master/module2_getting_started>

## Loading up test data into mongodb

Within the data directory of this repository there is a **bank\_data.json.zip** file; you should decompress it. We will use this file to load up the bank data collection into mongodb. From the mongodb installation **bin** in a new console window, execute the command:

mongoimport <path to bank\_data.json> --jsonArray --collection bank\_data

our directory

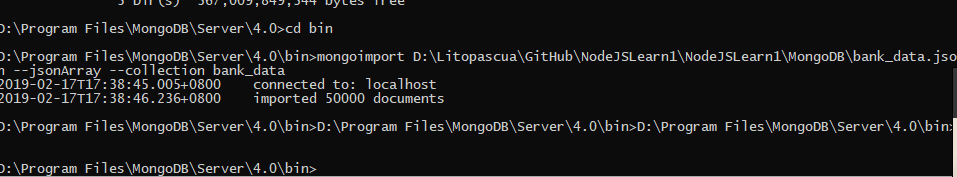
D:\Litopascua\GitHub\NodeJSLearn1\NodeJSLearn1\MongoDB

Bin path

D:\Program Files\MongoDB\Server\4.0\bin>

* Import the json file bank\_data.json

mongoimport D:\Litopascua\GitHub\NodeJSLearn1\NodeJSLearn1\MongoDB\bank\_data.json --jsonArray --collection bank\_data



**Collections**

* Container for a group of Documents
* Database contain many of these
* Akin to a ‘Table’ in a SQL Database

**Queries**

* User a Query Object to Fetch Requested Data
* Resembles objects already in the database
* Can also be used to Update or Delete data

**Projections**

* Used to filter the date you want
* Similar to what SELECT does in SQL query
* Take similar form of Query objects
* Start Mongod database listening to port 12017
* Node app.js

D:\Litopascua\GitHub\NodeJSLearn1\NodeJSLearn1\13\_MongoDB

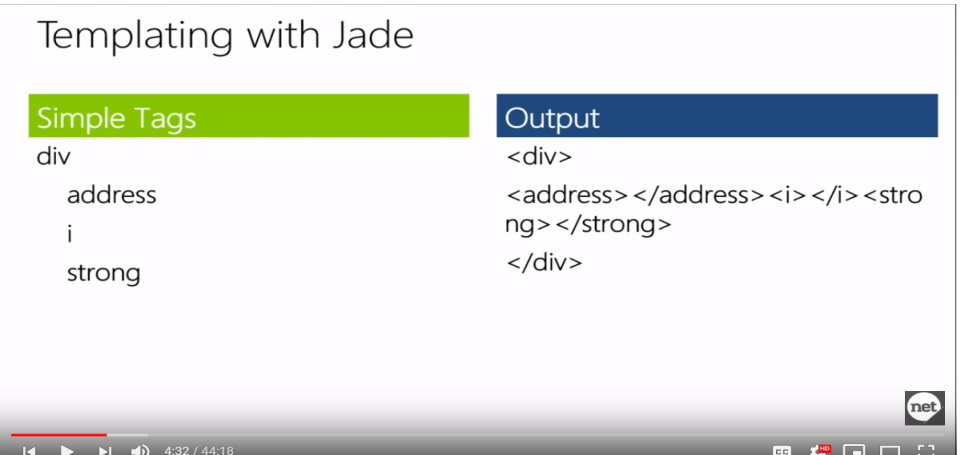
Using Node.js with VS Code: 04 Building a Front End for Your Express Web

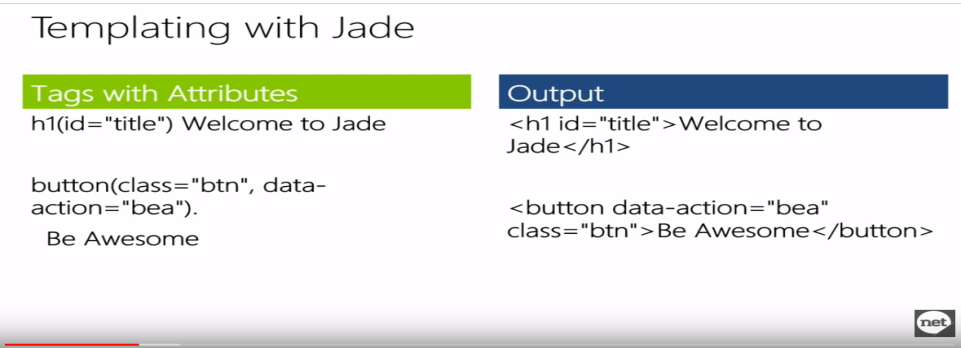
<https://www.youtube.com/watch?v=ZnTVyzGcVNA&list=PLsrZV8shpwjNuvhvotOuzRCQGcqscCekJ&index=4>

* **Introduction to Jade**
* Jade Templates
* Implementing Bootstrap

**Templating with Jade**

* Jade is a templating language to simply writing HTML
* Jade syntax and keywords map directly to HTML
* Jade add the ability to seperate and extend HTML
* Help prevent code repeat
* Ensure clean HTML is generated
* Allows you to insert values into HTML through templates





The extend keywords allows a template to extend a layout or parent template. It can then override certain pre-defined blocks of content.

The block keyword allows you to establish a block or replace the content of pre-defined blocks.

Templating with Jade

The **extends** keywords allow a template to extend a layout or parent template. It can the override certain pre-defined blocks of content.

The **block** keyword allows you to establish a block or replace the content of pre-defined blocks.

**Using Jade Templates**

**DEMO**