

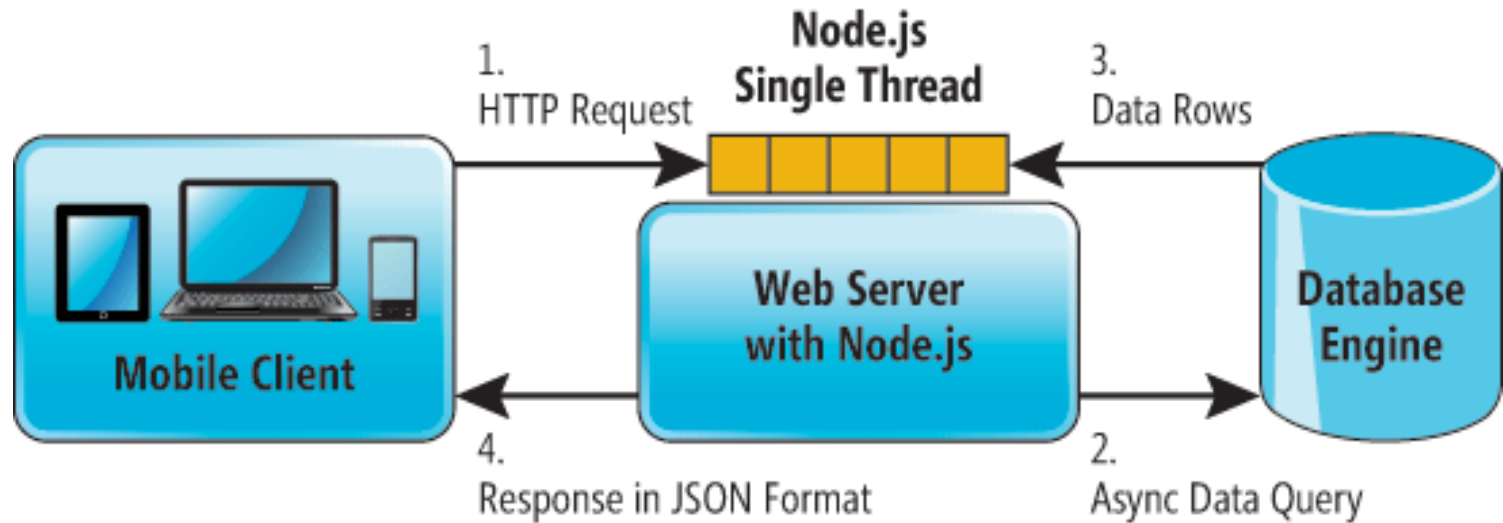
# Build Wikipedia with Node.js+Express

@vicohyeh | vicyeh.me

# Overview

- Web Application
- Node.js
- Express
- Hack Wikipedia!

# How does Web work?



# Web Stack

- Client-side templating
- Web Server
- Database
- Operating System

# Cloud Hosting Services

- Digital Ocean
- AWS
- Heroku

# What is Node.js?

- Cross-platform for building web server
- Run on top of the Google V8 JS Engine
- Event-driven
- Non-blocking I/O

# Node.js is...

- a runtime environment with many features.

# Why is it so popular?

- You write Node.js in JavaScript!

The image shows the JavaScript logo, which consists of the letters 'JS' in a bold, dark blue, sans-serif font. The letters are centered within a solid yellow square background.



# Hello World



hello world.

# Hello World, Part I

```
//load http module
```

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

## Notes

- `require()` is like `#include` in C/C++
- `http` module in Node supports many features of the HTTP protocol

# Hello World, Part II

```
var server = http.createServer(function(request, response){  
  //write HTTP head  
  response.writeHead(200,{‘Content-Type’: ‘text/plain’});  
  //your response content  
  response.write(‘Hello World’);  
  response.end();  
});
```

# Hello World, Part III

//listen to port 8080

```
server.listen(8080);
```

# server.js

```
var http = require('http');  
var server = http.createServer(function(request, response){  
    response.writeHead(200,{'Content-Type': 'text/plain'});  
    response.write('Hello World');  
    response.end();  
});  
server.listen(8080);
```

# Execute Node.js

```
$node server.js
```

# Go to localhost:8080

Hello World

# NPM: Node Package Manager

- Bundled with Node.js installation
- Allows users to install Node.js modules that are available on the npm registry



# Search for modules

[www.npmjs.com](https://www.npmjs.com)

# NPM Usage

```
$npm install <moduleName>
```

i.e. to install LESS:

```
$npm install less
```

# Check Installation

```
$node -v
```

```
v0.10.28
```

```
$npm -v
```

```
1.4.9
```

# Express.js

- Light-weight Node.js framework to help organize your web application into an MVC architecture on server-side.

We will talk more about it while hacking Wiki.

# Database

## Relational DB

- MySQL

## NoSQL DB

- MongoDB
- CouchDB

# What is MongoDB?

- Document-oriented database
- NoSQL

OR

- Can store/retrieve JSON data for your app

# Intro to MongoDB, Part I

//start the database server

\$mongod

//start mongo

\$mongo

# Intro to MongoDB, Part II

//display the list of databases

**\$show dbs**

//switch to a new database

**\$use <mydb>**

//show the list of collections in the current db

**\$show collections**



# Intro to MongoDB, Part III

Assume 'pages' is a collection in the current db


//insertion

```
$db.pages.insert({id:105,name:'Tom'})
```

//search for data

```
$db.pages.find({id:105})
```

# Hack Wikipedia!



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## Vic Yeh

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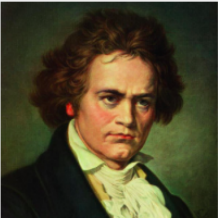
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### Personal Life

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#### Vic Yeh



**Major** Computer Science

**Alma Mater** University of California, Los Angeles

**Interests** watch YouTube  
play 2k15  
procrastinate

# Questions?

Contact me at [vic.yeh@ucla.edu](mailto:vic.yeh@ucla.edu)

Or tweet me @vicohyeh :)