

# North Shore .NET User Group

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# Hacking on Azure Websites

with Node.js and the Spotify Web API

@DanielLarsenNZ

# This talk

Node.js on Azure Websites

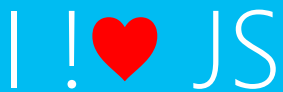
Spotify Web API

Node.js + Express

WebJobs, Queue Storage

# JavaScript on the Server?

I  
!❤  
JS



Not to love	Node.js
Interpreted in real time.	V8 compiles JS into native machine code before executing.
Synchronous scripting language.	Asynchronous through callback pattern.
Performance issues in Browsers.	Single Threaded Event Loop pattern enables scale to tens of thousands of connections.
Dynamic Type system.	It's still there and makes sense for many applications. TypeScript can help if you need Static Types.

# JavaScript on the Server!

I  
♥  
JS

Great for:

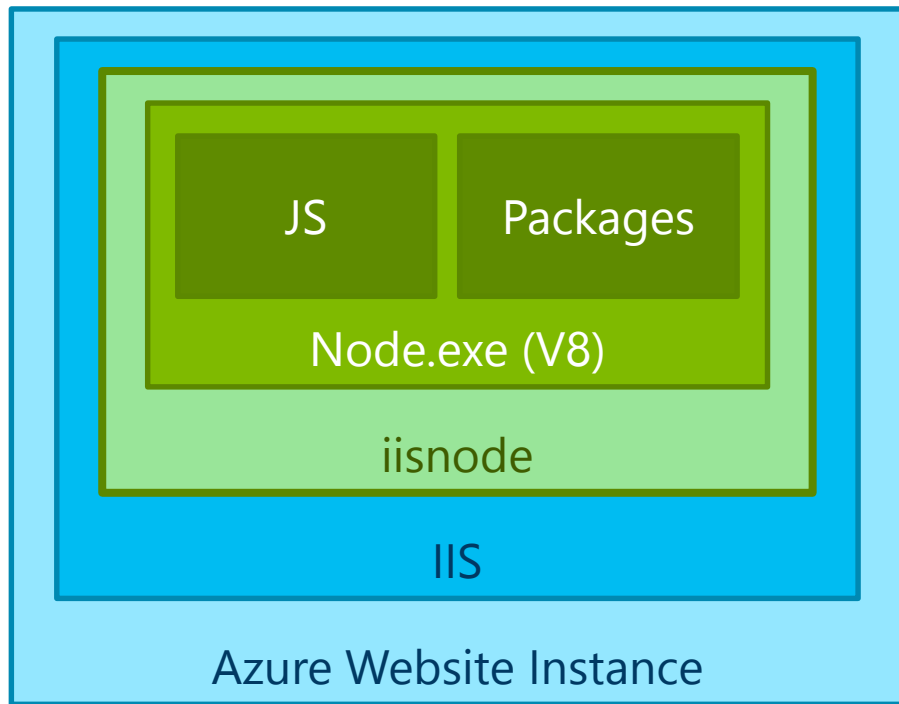
- ♥ APIs
- ♥ Bounded Context
- ♥ Polyglot programming
- ♥ Mixed Linux / Windows environments
- ♥ SOA & Microservices
- ♥ Scale!



- Azure Websites
- Node.js
- Express
- Sails.js
- Waterline
- MongoDB
- Angularjs
- Ionic
- Mobile Angular
- PureCSS

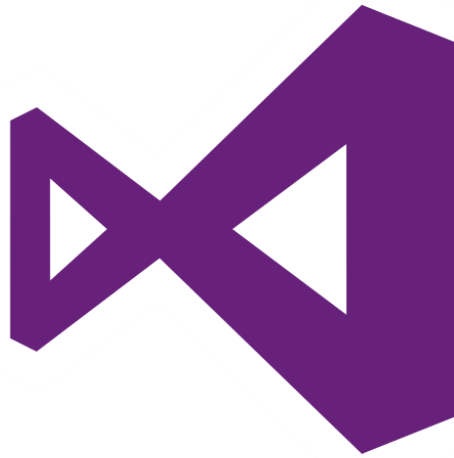


# Node.js on Azure Websites





# Node.js in Visual Studio

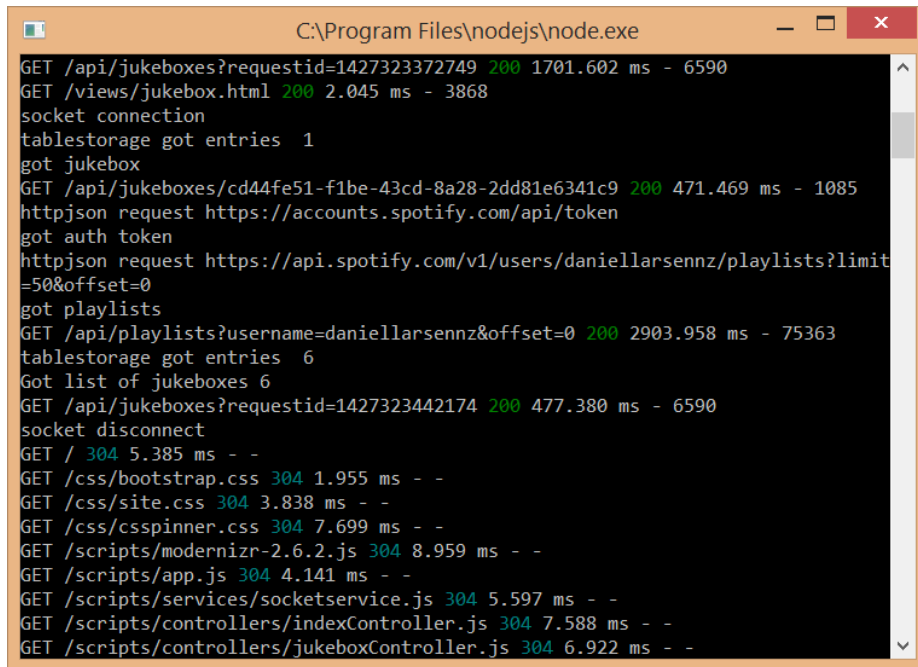


## Node Tools for Visual Studio (NTVS) 1.0

- Visual Studio 2015 Preview
  - (NTVS VS 2015 Preview Dev Build)
- Visual Studio 2013 Update 4
  - All editions including Express Web
- Visual Studio 2012 Update 4
  - Pro edition +

# Express

Fast, un-opinionated,  
minimalist web  
framework for Node.js



```
C:\Program Files\nodejs\node.exe
GET /api/jukeboxes?requestid=1427323372749 200 1701.602 ms - 6590
GET /views/jukebox.html 200 2.045 ms - 3868
socket connection
tablestorage got entries 1
got jukebox
GET /api/jukeboxes/cd44fe51-f1be-43cd-8a28-2dd81e6341c9 200 471.469 ms - 1085
httpjson request https://accounts.spotify.com/api/token
got auth token
httpjson request https://api.spotify.com/v1/users/daniellarsennz/playlists?limit=50&offset=0
got playlists
GET /api/playlists?username=daniellarsennz&offset=0 200 2903.958 ms - 75363
tablestorage got entries 6
Got list of jukeboxes 6
GET /api/jukeboxes?requestid=1427323442174 200 477.380 ms - 6590
socket disconnect
GET / 304 5.385 ms - -
GET /css/bootstrap.css 304 1.955 ms - -
GET /css/site.css 304 3.838 ms - -
GET /css/cssspinner.css 304 7.699 ms - -
GET /scripts/modernizr-2.6.2.js 304 8.959 ms - -
GET /scripts/app.js 304 4.141 ms - -
GET /scripts/services/socketservice.js 304 5.597 ms - -
GET /scripts/controllers/indexController.js 304 7.588 ms - -
GET /scripts/controllers/jukeboxController.js 304 6.922 ms - -
```

# NPM (Node.js Package Manager)

Nuget for Node.js



# Demo

Node.js + Express + NTVS

# Spotify Web API


<https://developer.spotify.com>

# Demos

- <https://developer.spotify.com/web-api/>
- <http://music.xbox.com/Developer>
- <http://lab.possan.se/thirtify>


# http://jukebox30.azurewebsites.net

Testing 1555 Stop 79 tracks 2 listeners

 **00:06**  
Roni Size & DJ Die  
The Calling - Goldie Remix

Add music to the Jukebox


Testing 1555 Stop 79 tracks 2 listeners

 **00:06**  
Roni Size & DJ Die  
The Calling - Goldie Remix

Add music to the Jukebox

Jukebox

Testing 1611 Stop 20 tracks 2 listeners

 **00:22**  
Wolfgang Amadeus Mozart  
Symphony No. 35 in D Major, K. 385,  
"Haffner": II. Andante

Add music to the Jukebox

Go

#	Playlist	tracks	By
1	Metalheadz	79	1147614238

Add

Jukebox

Testing 1611 Stop 20 tracks 2 listeners

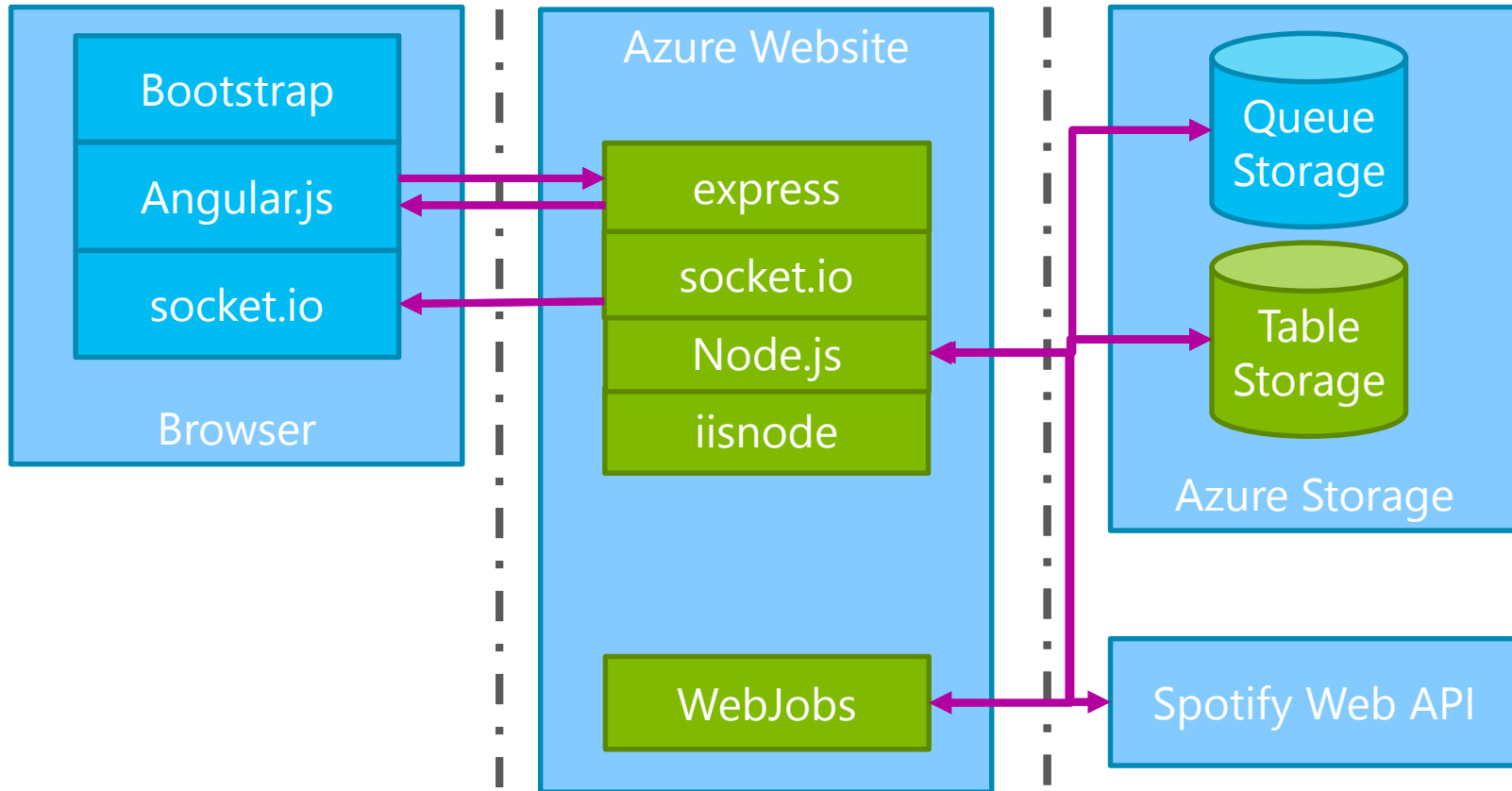
 **00:22**  
Wolfgang Amadeus Mozart  
Symphony No. 35 in D Major, K. 385,  
"Haffner": II. Andante

Add music to the Jukebox

Go

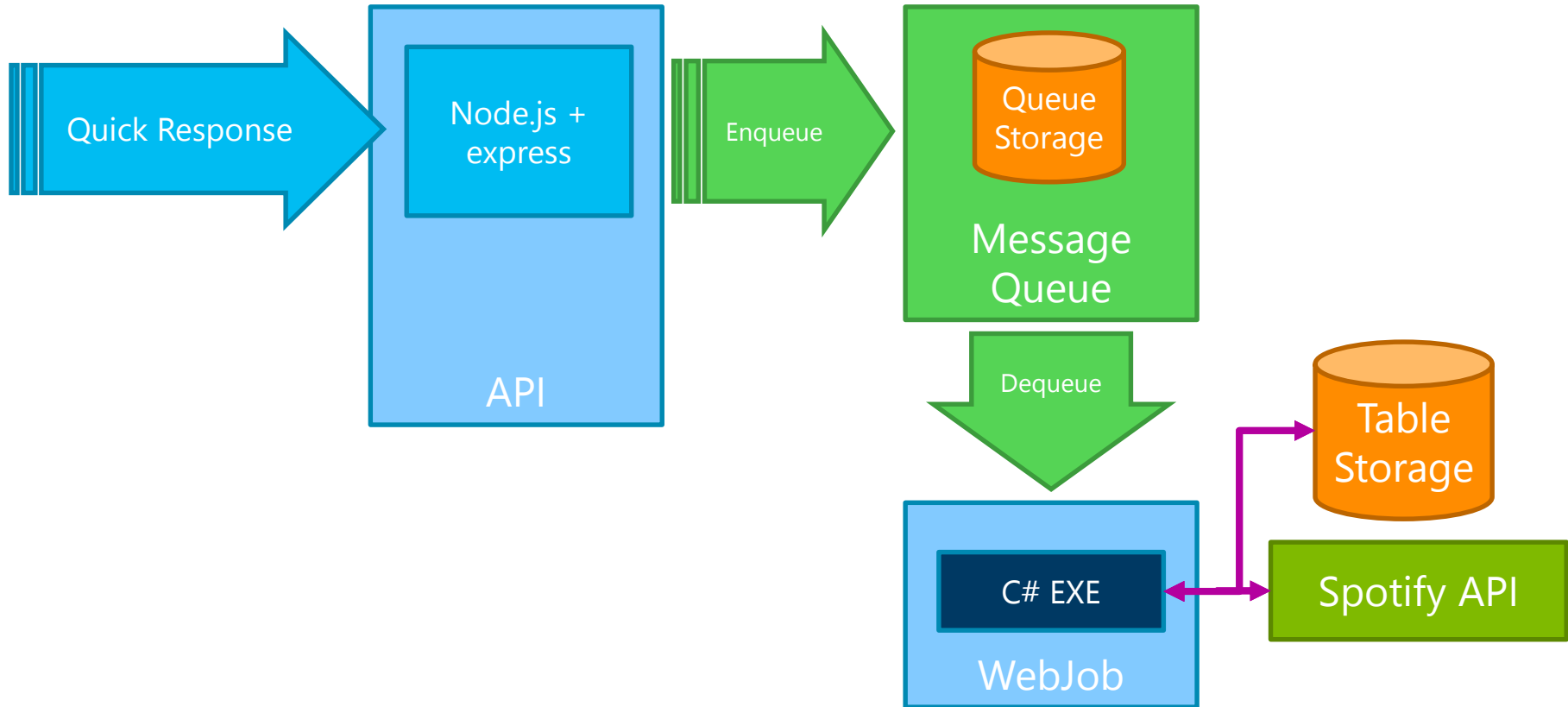
#	Playlist	tracks	By
---	----------	--------	----

# Architecture





# Queue pattern



# Azure WebJobs, Queue Storage

Walkthrough

# Recapping



Node.js on Azure Websites



Spotify Web API



Node.js + Express



WebJobs, Queue Storage

# Questions?

Daniel Larsen

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<https://github.com/DanielLarsenNZ/Hacking-on-Azure>

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Next Meeting

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