

# Node.js for .NET developers

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**DEVELOPMENTOR**

DEVELOPING PEOPLE WHO DEVELOP SOFTWARE

# Objectives



- What is Node.js?
- Install it
- Write scripts
- Build a server
- Use npm to install packages
- Build a better server with 3<sup>rd</sup>-party packages
- Debug with Visual Studio

# What is Node.js?



- Platform built on Chrome's JavaScript runtime
- Uses event-driven, non-blocking I/O model
- Created in 2009 by Ryan Dahl
  - turned over to Isaac Schlueter (author of npm) in 2012
- Sponsored by Joyent
  - employer of both Ryan and Isaac
  - offers commercial support services
- Tens of thousands of modules available via npm
- Large and active community of module authors and application builders
- Frequently used to build Web applications
  - capable of much more

# What is Node.js?



- For **.NET** developers:

Node.js	CLR
JavaScript	C#
npm	NuGet

# How to get Node.js?



- Downloads and API docs on official Node.js site:
  - <http://nodejs.org/>
- Source, issues, and wiki on GitHub:
  - <https://github.com/joyent/node>



- After installing, node and npm should be in your PATH
- Launching node with no arguments starts a REPL (read/eval/print loop)
  - evaluate JavaScript here
  - useful for quick experiments
  - enter Ctrl+C twice to exit



- Node.js does not have an official IDE
  - most developers use their favorite text editor and the terminal
- 3<sup>rd</sup> parties do offer commercial IDEs
  - WebStorm by JetBrains is fully-featured and cross-platform
  - Visual Studio can be extended



- Save in hello.js:

```
console.log('Hello, Node.js!');
```

- Run:
  - node hello.js





- npm is Node's package manager
  - <https://npmjs.org/>
- Installs packages into local node\_modules folder
  - reads package.json to discover dependencies

```
npm install package-name-you-want
```

# What is Node.js?



- Popular npm module equivalents:

Connect	OWIN/Katana
Express	MVC
Mongoose	EF



- Microsoft has released Node.js Tools for Visual Studio
  - <https://nodejstools.codeplex.com/>
  - works with 2012 and 2013
- Integrates Node and npm into Visual Studio
  - IntelliSense
  - debugging
  - package.json management



- Node.js is an exciting new platform with a lot to offer
- Official support in Visual Studio has finally arrived!