

# **Node.js for .NET Developers**

What is NodeJS?

# Agenda

- **What is Node.js?**
  - Node.js in a Nutshell
  - Why Node.js?
  - Installing Node.js
  - Hello World Node.js
  - Using Node.js with Visual Studio
  - Dependency Management
  - Node Package Manager



# WHAT IS NODE.JS?

Platform for executing JavaScript based on non-blocking I/O, event-driven model that enables fast, scalable network applications.



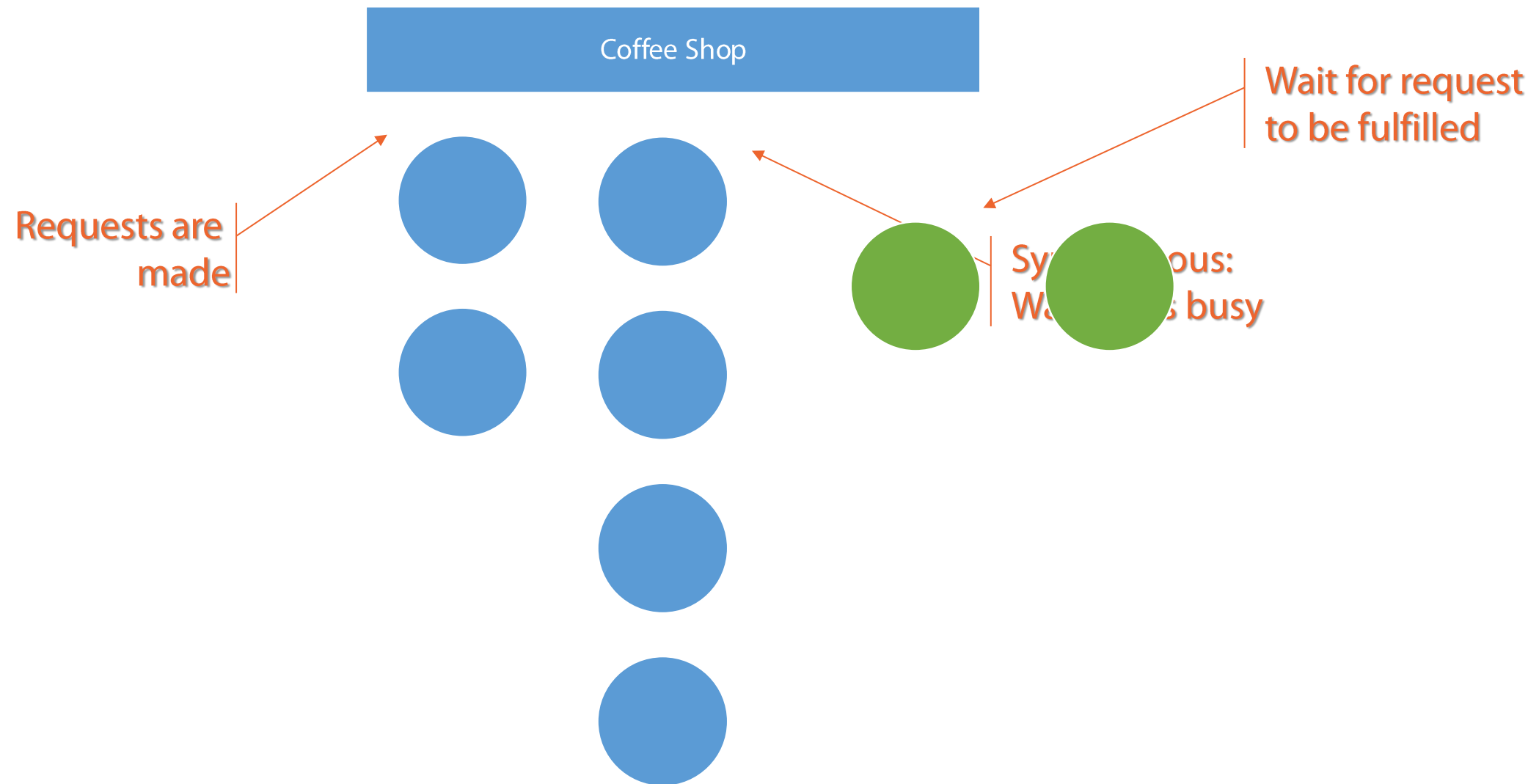
# NODE.JS

## Server-side JavaScript for Network Applications

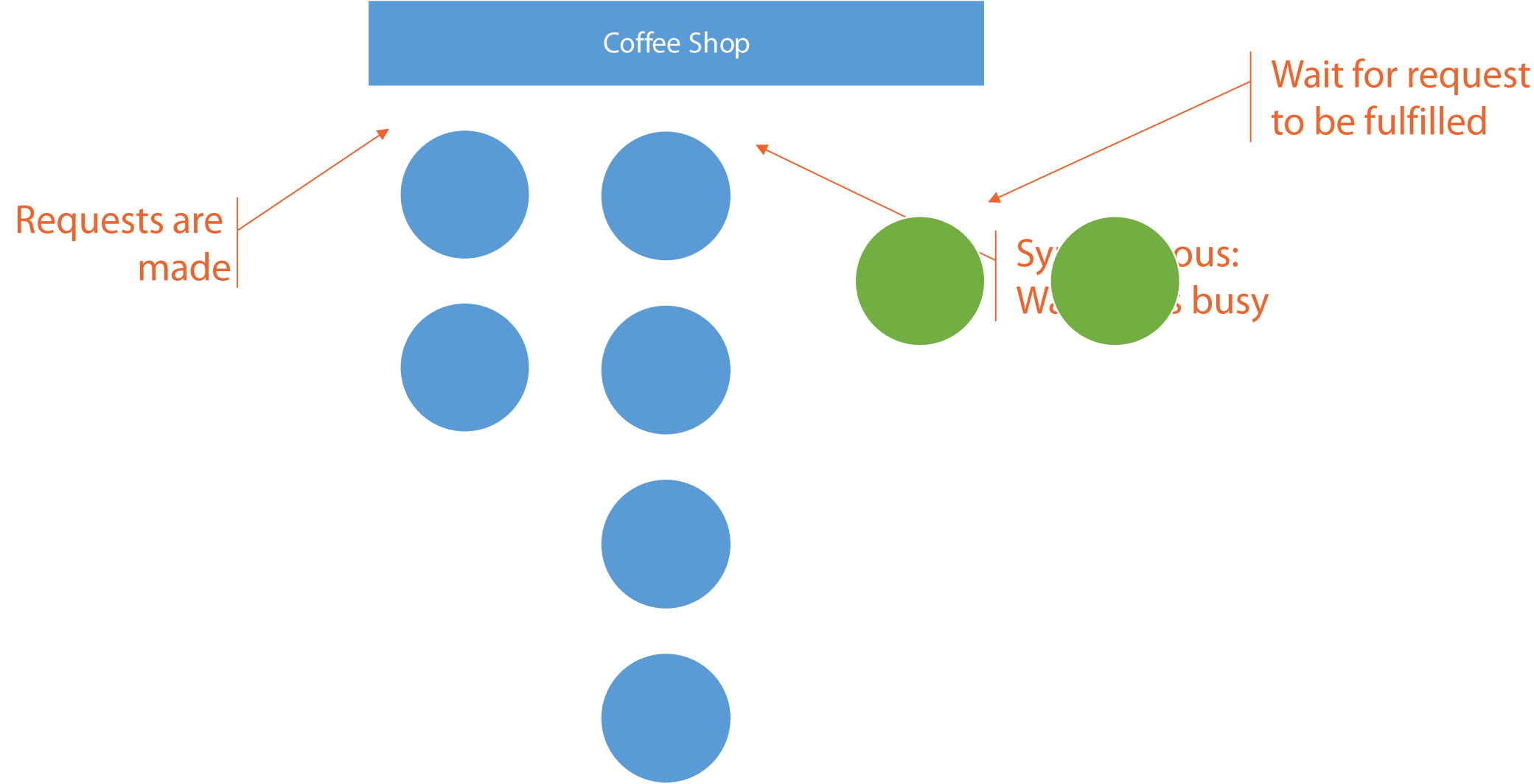
- Supports Modular JavaScript
- Encourages non-blocking (asynchronous) code
- HTTP, Networking, and Web Sockets are 1<sup>st</sup> class citizens
- Node.js is a low-level, fast platform
  - But wasn't written in JavaScript



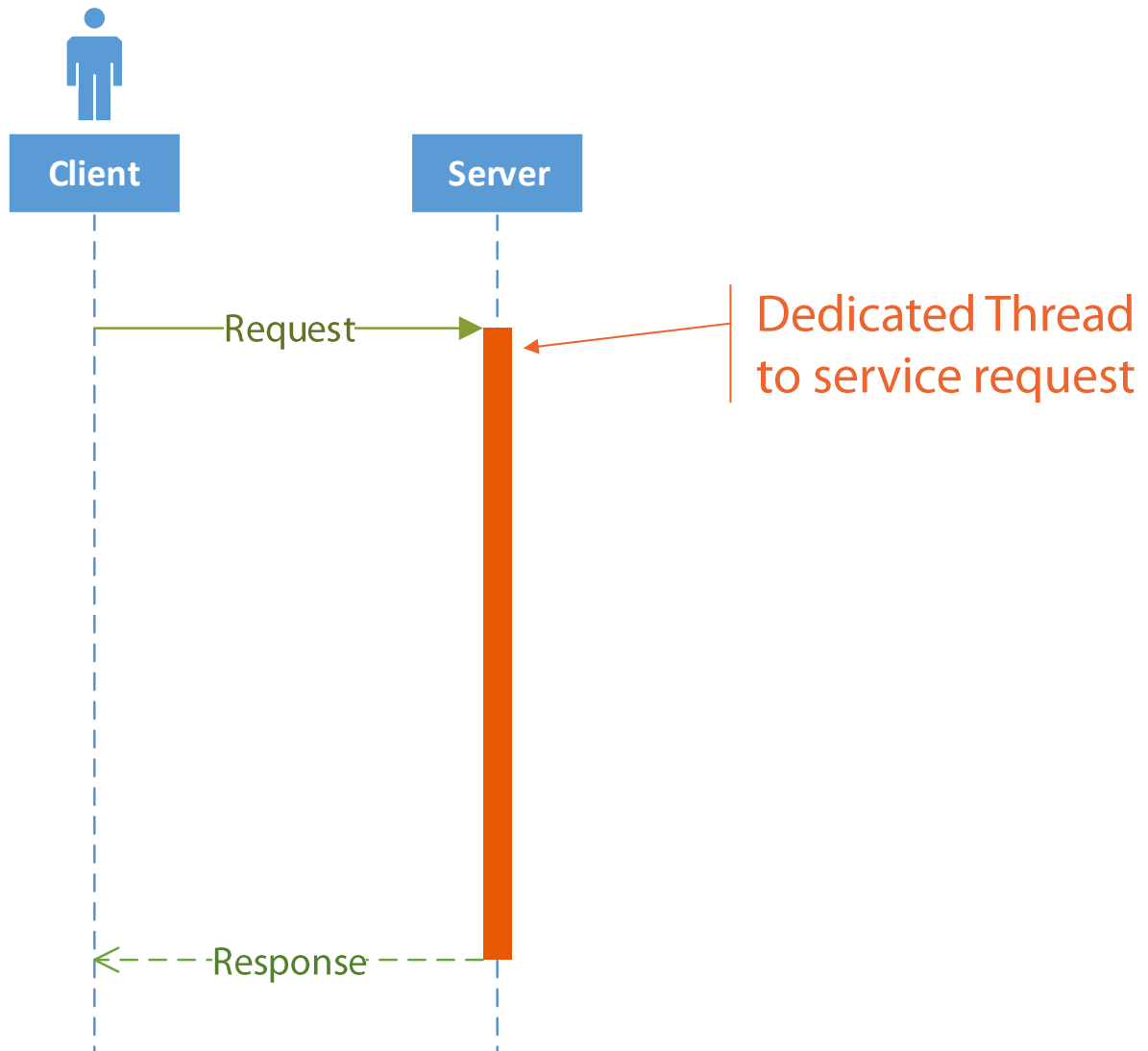
# Node.js and Traditional Web Servers



# Node.js and Traditional Web Servers

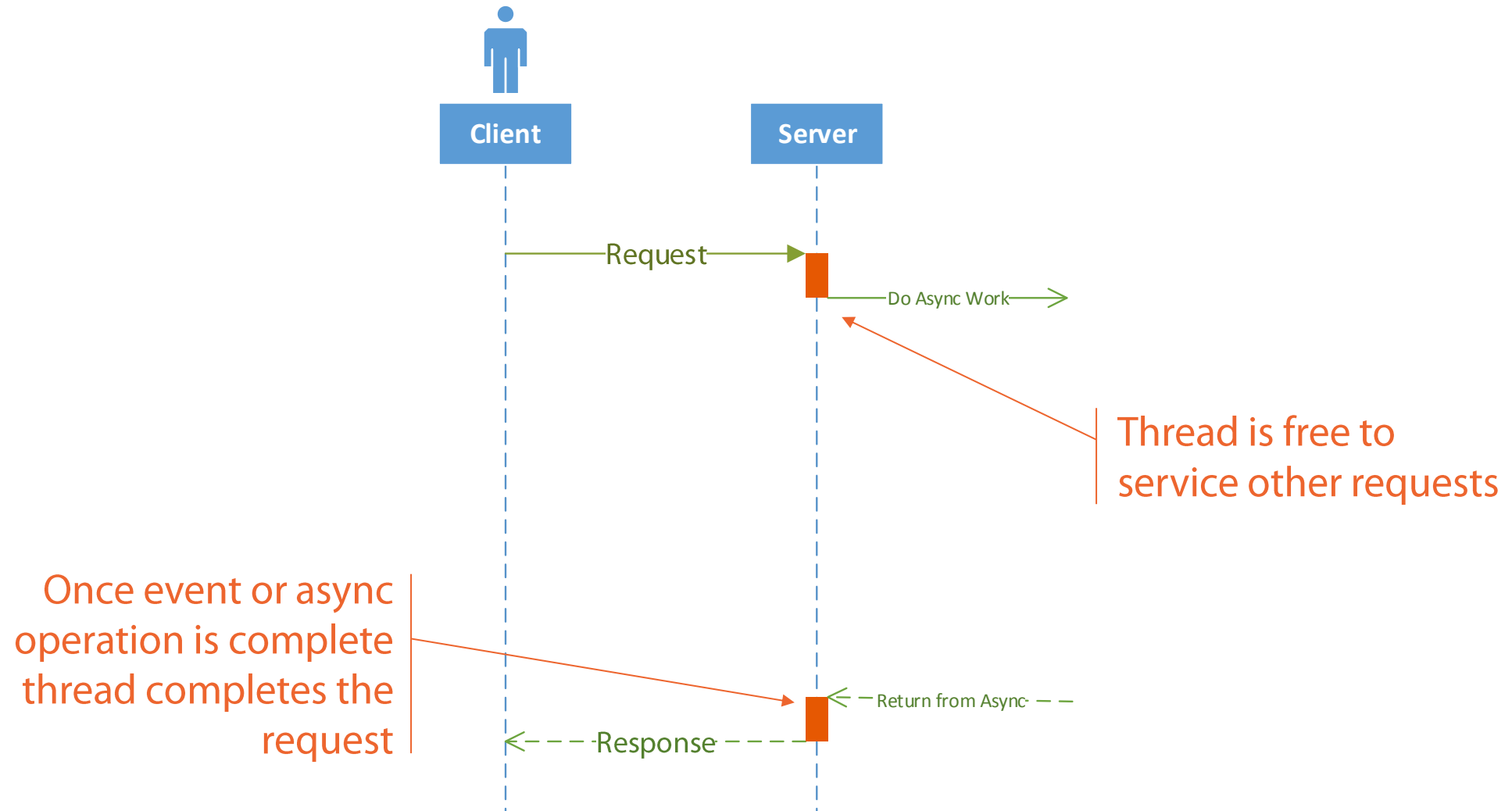


# Traditional Web Server Model





# Async Web Server Model

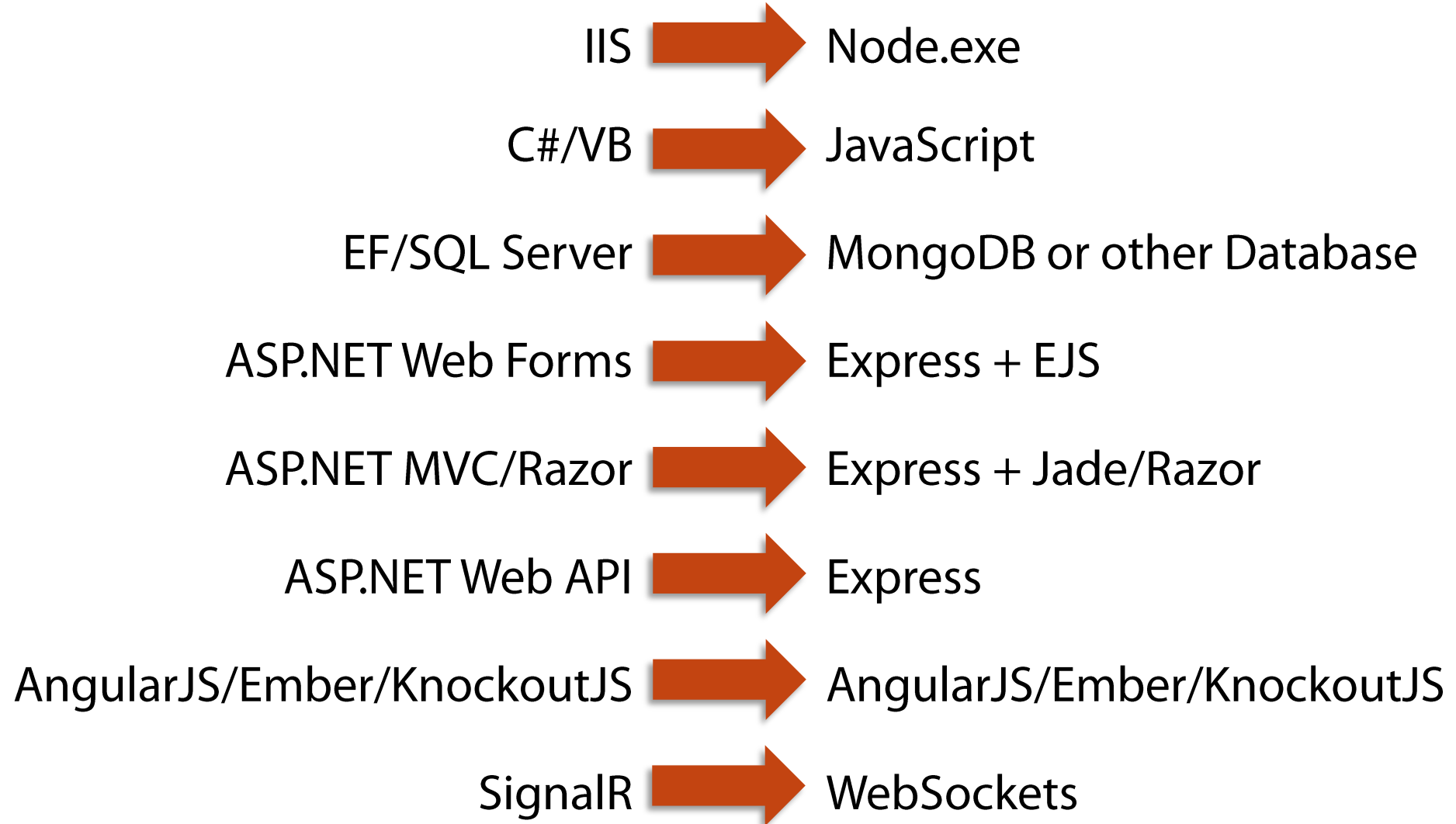




NODE.JS IS ASYNCHRONOUS BY  
NATURE

YOU CAN ACCOMPLISH THIS IN  
ASP.NET BUT IT'S NOT THE DEFAULT  
BEHAVIOR

# Mapping the Nomenclature



# JAVASCRIPT IN NODE.JS

All JavaScript is executed under Google's V8 Engine

- Predictable execution model
- EcmaScript 5 is supported in NodeJS 0.5.1 and later
- V8 supports JIT and Optimizing Compiler





Lots of JavaScript problems go away in Node.js because you have complete control over the environment.



# demonstration

INSTALL NODEJS



# demonstration

HELLO WORLD NODEJS



# demonstration

NODEJS IN VISUAL STUDIO





# demonstration

DEPENDENCY MANAGEMENT IN NODEJS



# demonstration

FOLDER DEPENDENCIES



# demonstration

THE NODE PACKAGE MANAGER

# Summary

- **What is Node.js?**

- Node.js is a simple but powerful web server environment
- By utilizing your existing knowledge of JavaScript, you can get up to speed quickly
- Node.js uses the latest in JavaScript execution using the Chrome V8 engine
- Installing Node.js is simple and easy
- If you want to stay in the comfortable environment of Visual Studio there is a solution for that
- Node.js encourages good software practices out of the box like asynchrony and inversion of control