

Web Development with Express.js

Hadi Hariri

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Module 1

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- Introduction to node

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- Installation and Tooling

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- First node application

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- Connect Middleware: Foundation for Express.js

node.js

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- **Available on**
 - Windows
 - Service
 - Under IIS (iisnode)
 - *nix systems

node.js

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- **As a service**
 - Azure
 - Joyent

node.js



Built on V8 + Custom Libraries
Written and Extensible via C/C++



V8 JavaScript Engine

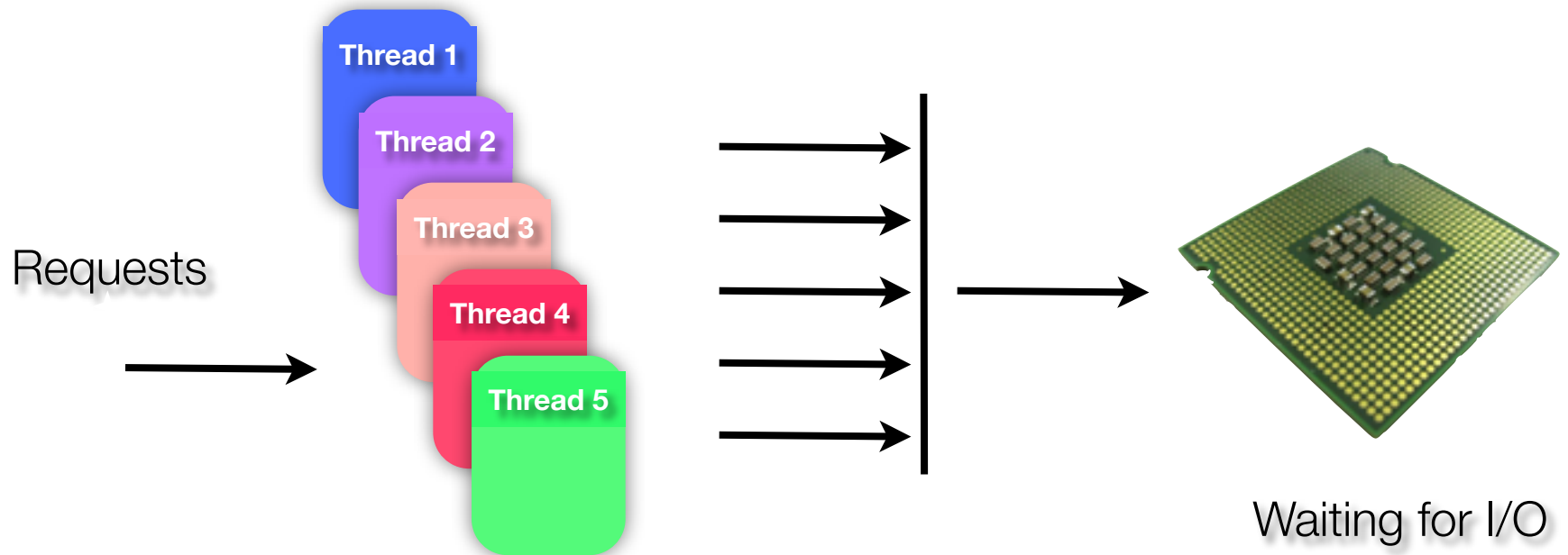
Translates JS...



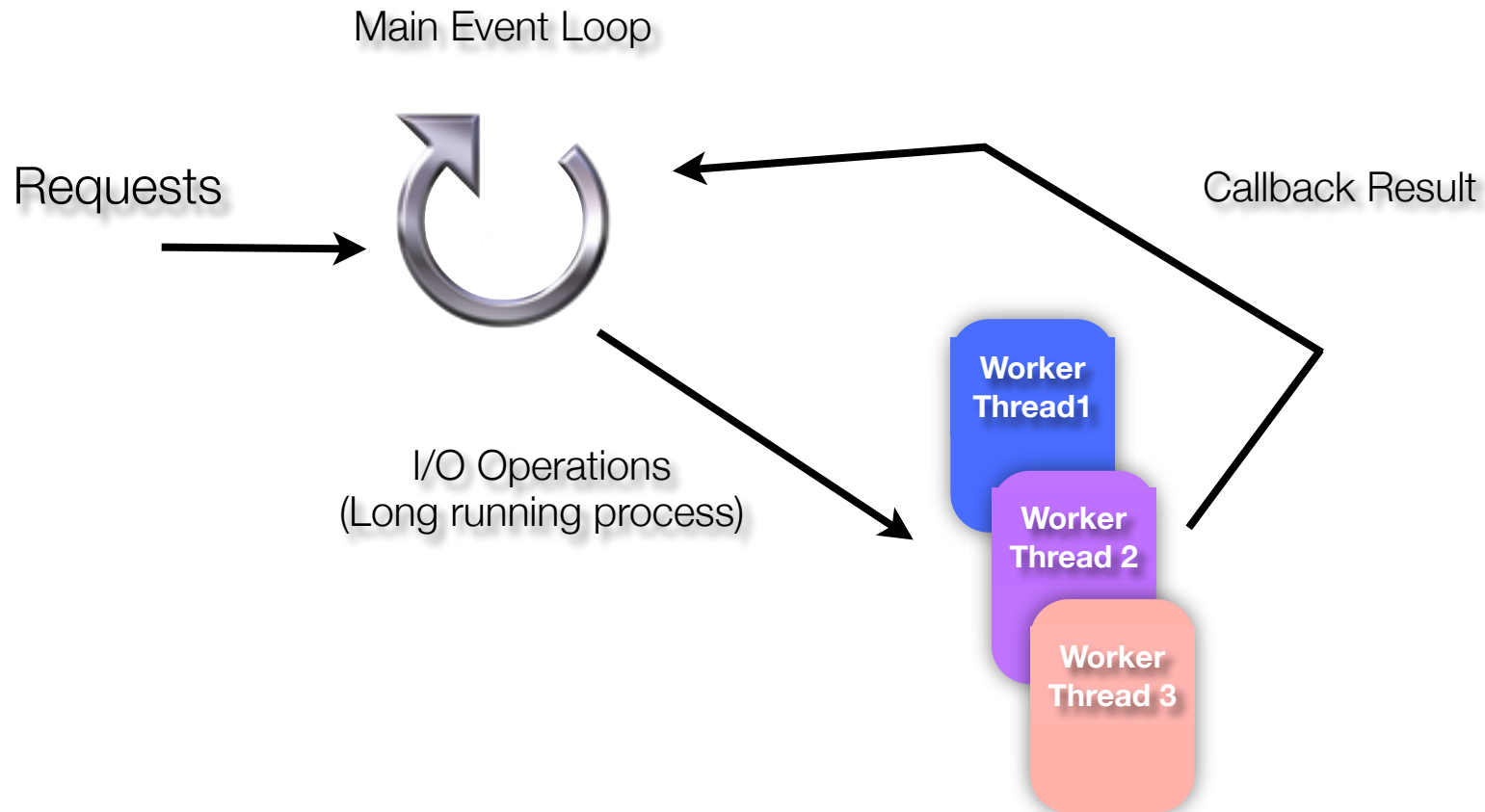
Native machine code

I/O is Expensive

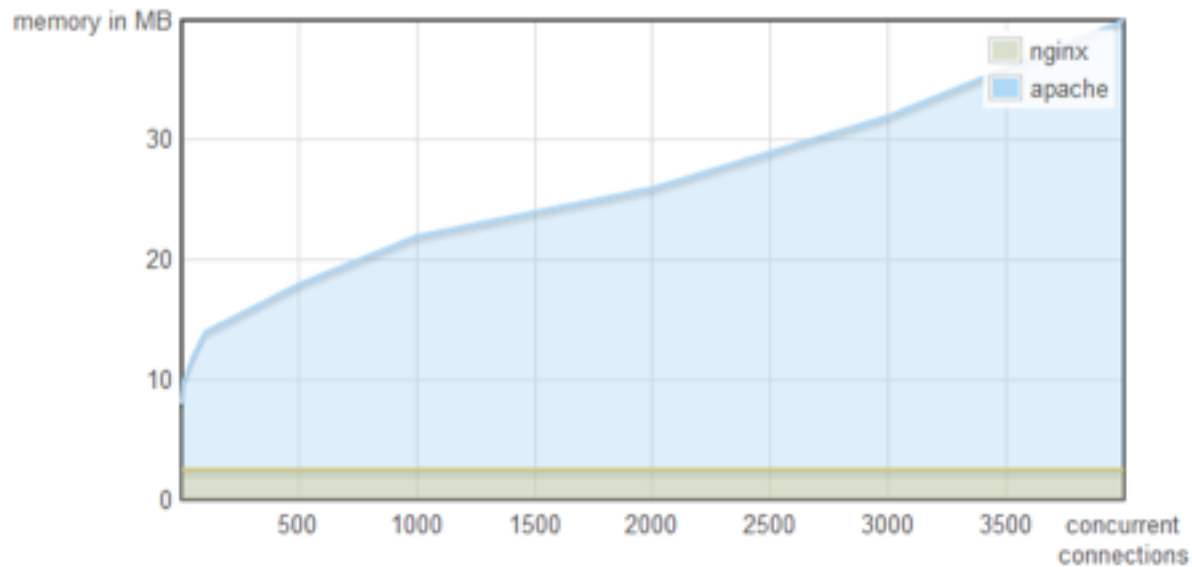
Threaded Model



Event-Loop Model

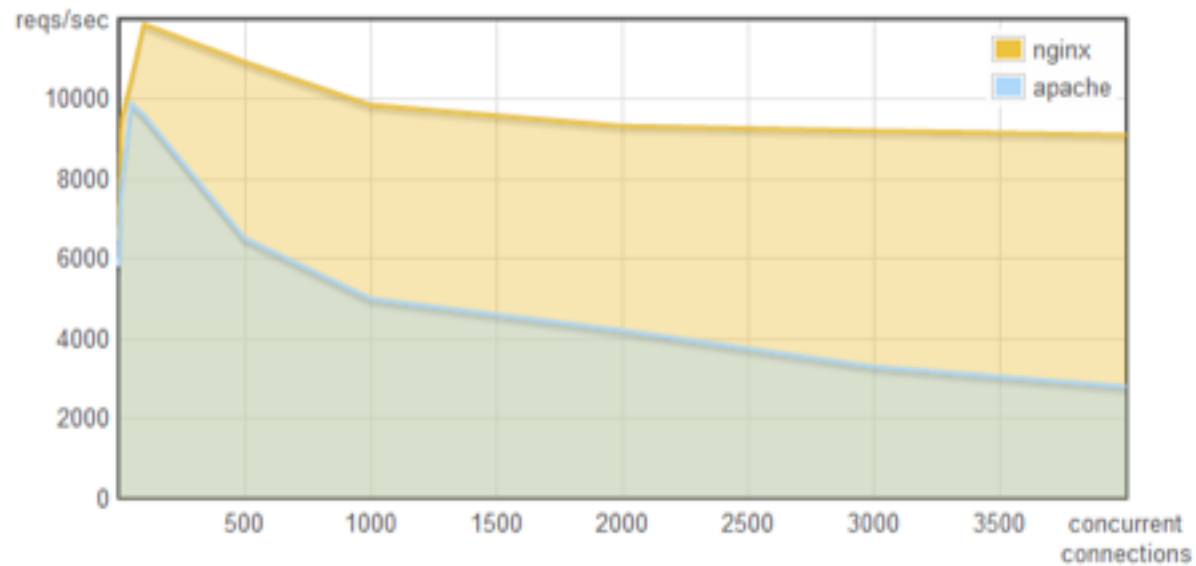


Memory Usage



Source: <http://www.beakkon.com/geek/node.js/why-node.js-single-thread-event-loop-javascript>

Performance



Source: <http://www.beakkon.com/geek/node.js/why-node.js-single-thread-event-loop-javascript>

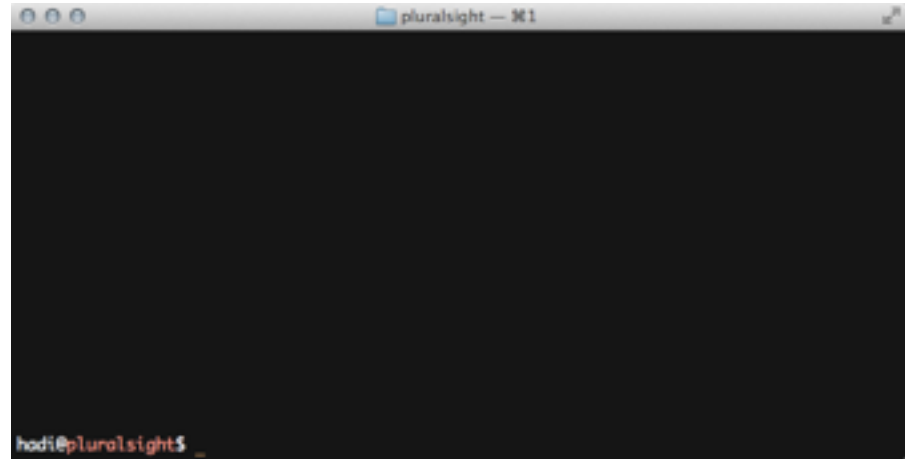
Installation and Tooling

Installation and Tooling

- **Command Line**

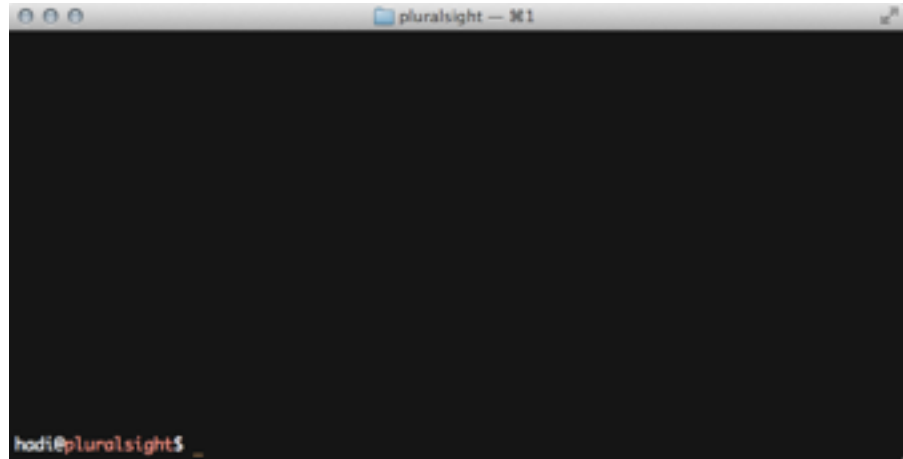
Installation and Tooling

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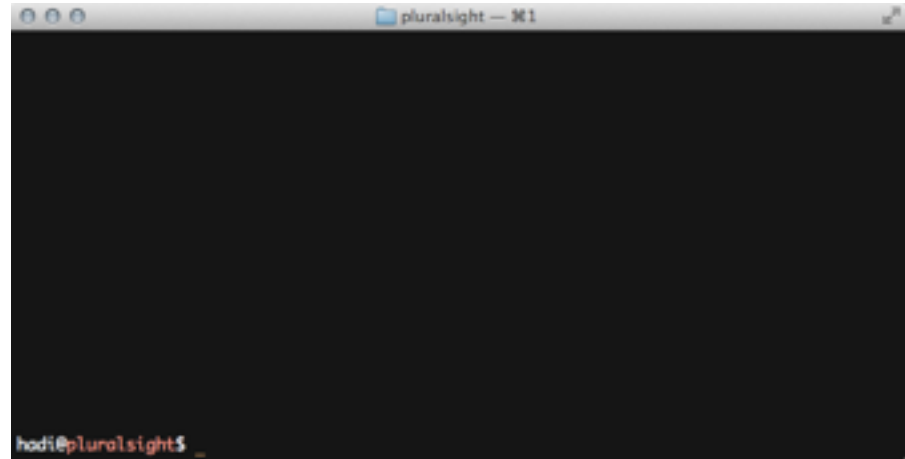
Installation and Tooling

- Command Line
- Favorite Editor



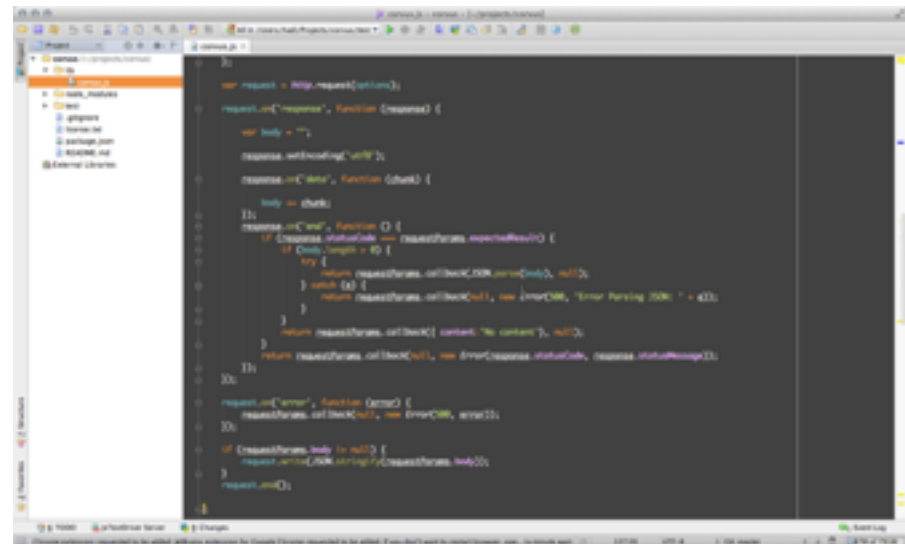
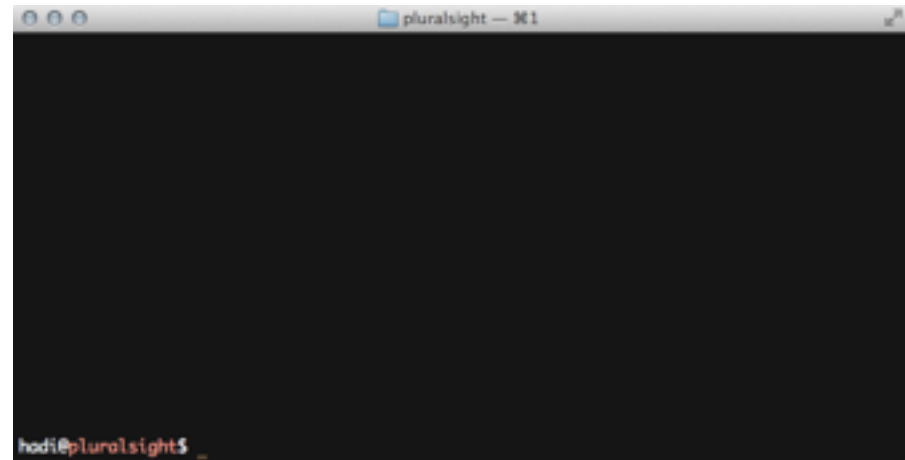
Installation and Tooling

- Command Line
- Favorite Editor
- Favorite IDE
 - Visual Studio
 - Cloud 9
 - WebStorm



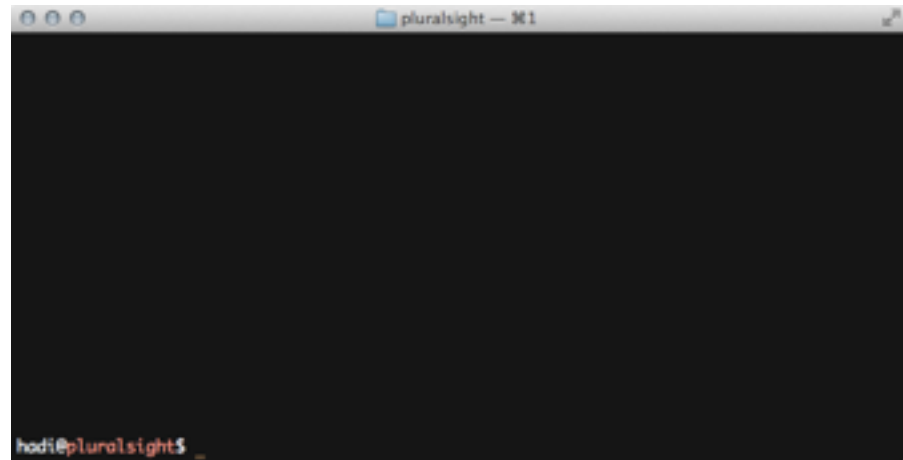
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Connect Middleware

Request Processing Pipeline

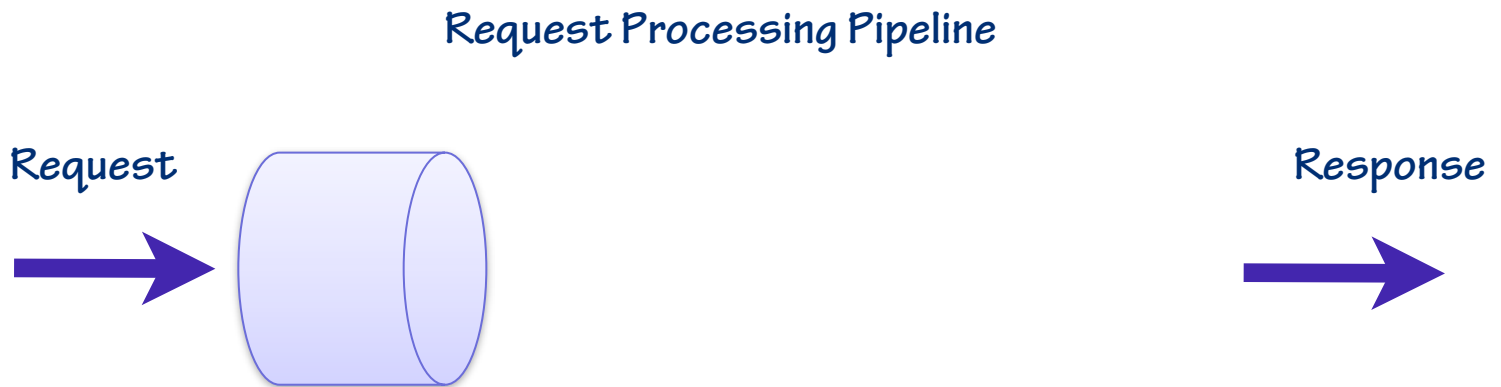
Request



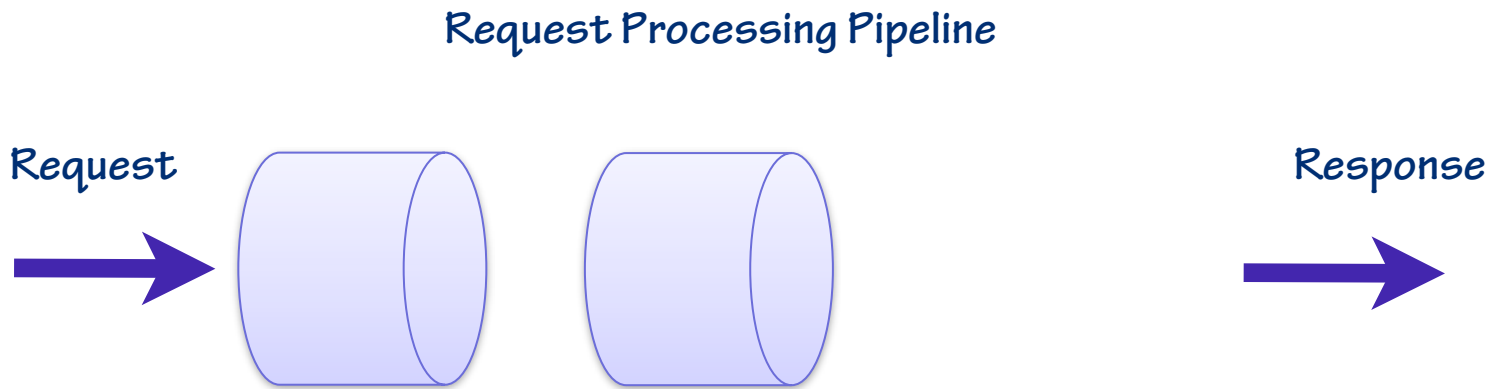
Response



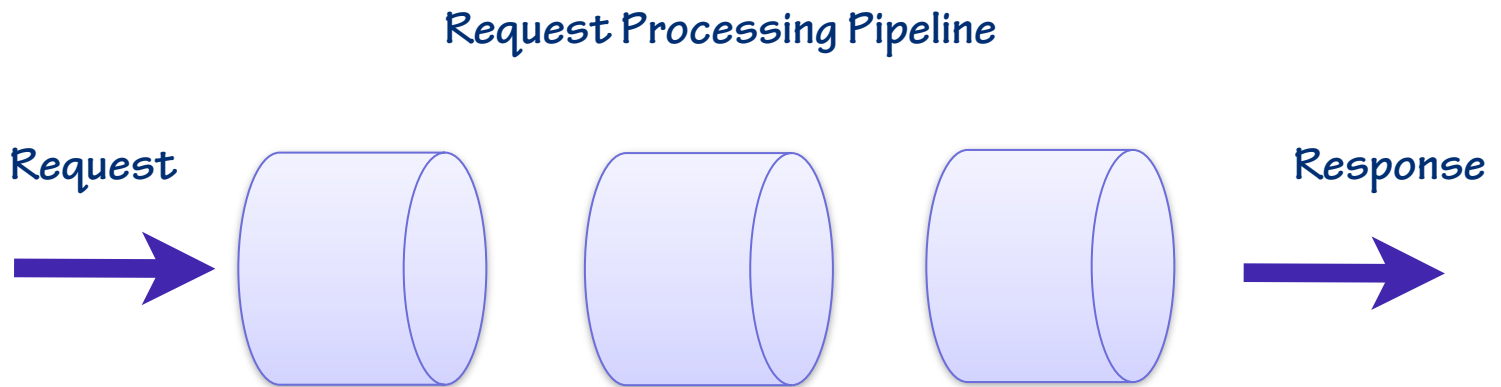
Connect Middleware



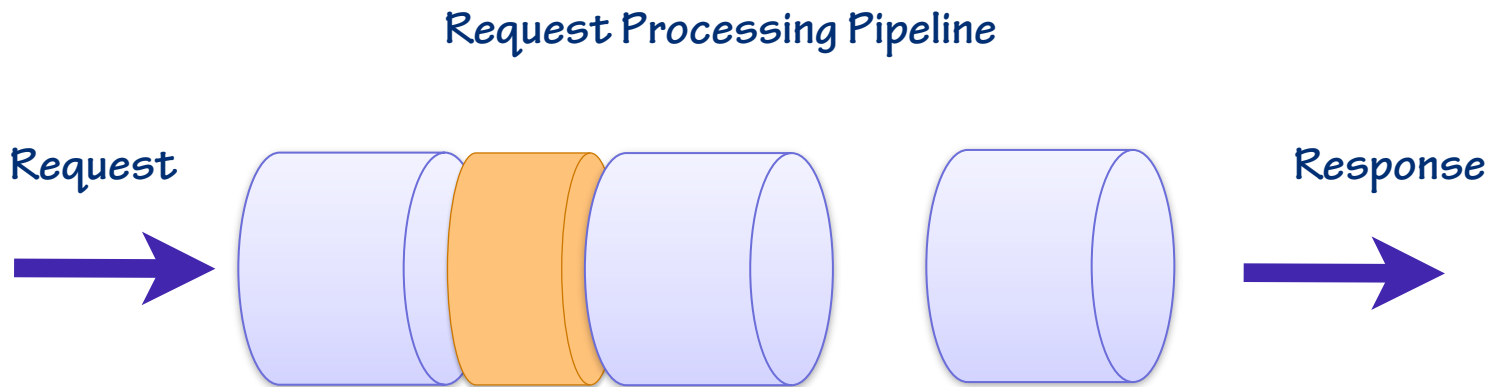
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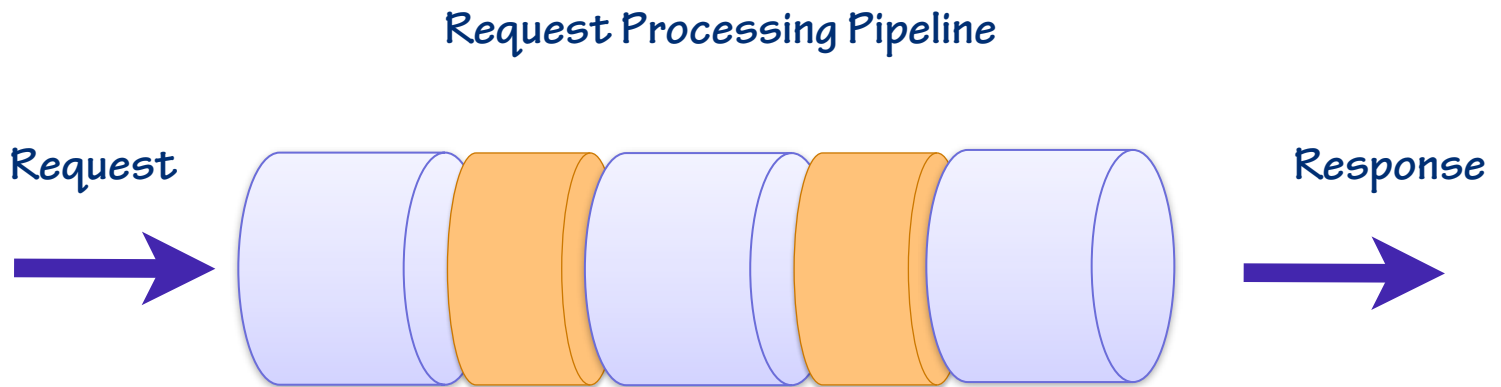
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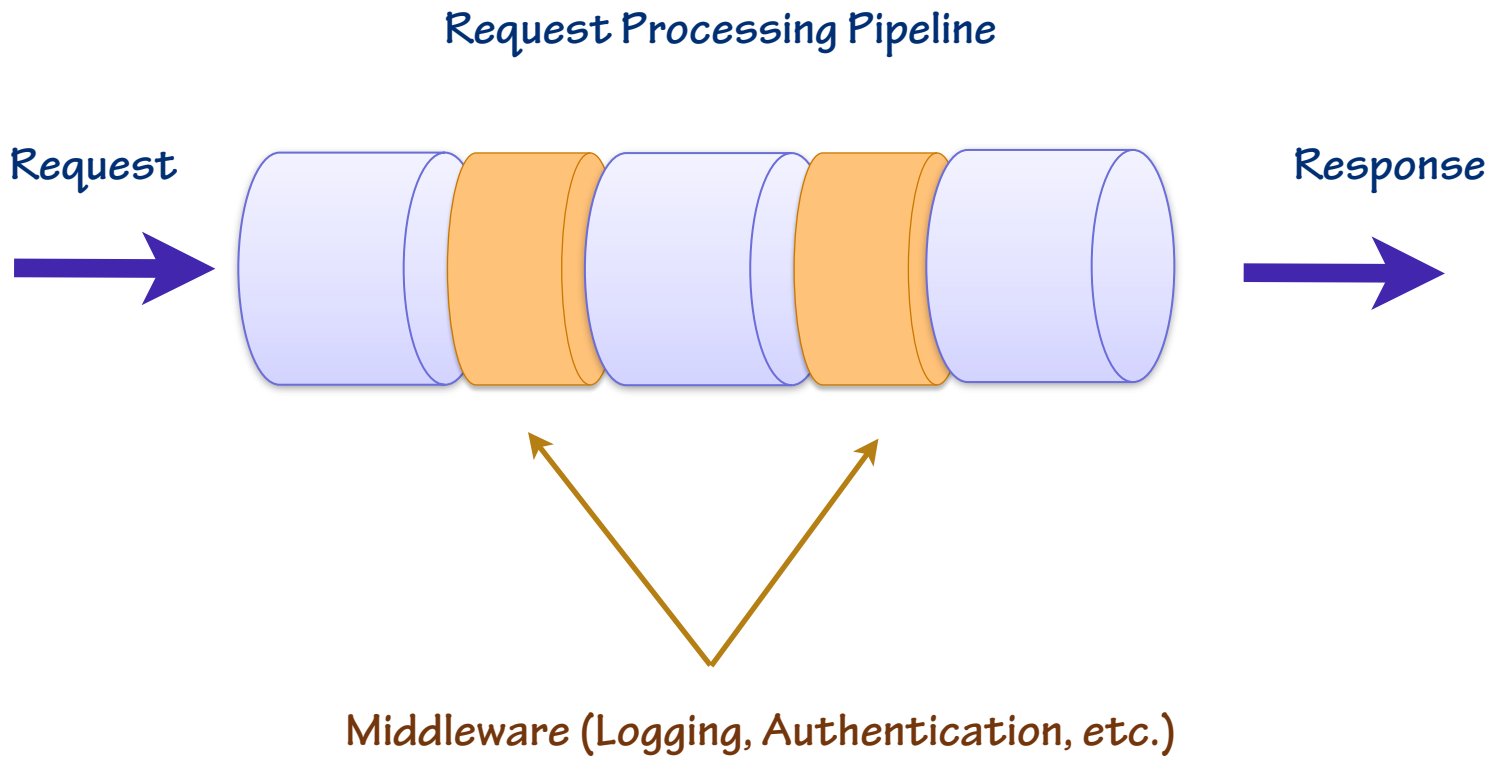
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- Built on top of node's Http Server

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- Available as an npm package (*connect*)