Node.js by Example

When to use Node.js

When should I use node.js?

- As mentioned in the last lecture, node.js is intended for creating scalable network software applications
- Especially applications requiring:
  - Heavy I/O
  - Event-driven behavior
  - High scalability (i.e. many clients)
- In short, when your application requires a persistent connection to the server for continuous data transfer

Real-Time Communication

- Traditionally, real-time client-server communication over HTTP is done using techniques such as long-polling
  - Each active long-polling client uses a server process
  - This creates a large amount of server load
- Node can do this efficiently without opening a separate server thread for each client
  - This allows synchronous applications to run with very little load on the server

JavaScript

- Additionally, with Node.js you get to leverage the advantages of JavaScript
  - Excellent event model
  - Commonly-known programming language
    - Programmers likely don't need to learn a new language to work on the back end
  - Same language on server and client side
    - Can share code between server and client

Application Types

- Certain types of applications are particularly suited for Node.js:
  - Real-time chat servers
  - Streaming servers
  - Real-time collaboration applications
  - Games

Who uses node.js?

- Currently, a number of top tech companies are using node.js, including:
  - Microsoft
  - Ebay
  - LinkedIn
  - Yahoo!
  - VMWare
  - 37Signals
  - more every day…

Time to code!

- Let's build something!
- Move on to the screencasts to get started.