Node.js

* Node is a runtime environment for JS
  + Normally JS exists in a browser
  + Allows JS to be used to create back-end servers
    - Express is a popular web framework for JS
* Node execution speed was on par with Java and other back-end programming languages
* JavaScript everywhere paradigm
  + Write the front-end and back-end in the same language

NPM (Node Package Manager)

* Analogous to Maven
* Allows us to install dependencies for our node applications
  + Pom.xml package.json
* Dependencies are stored in the node\_modules folder

TypeScript

* TypeScript is a super set of JavaScript
  + It was designed to be a JS that scales up to enterprise level applications
  + Anything you can do in JS you can do in TS
  + Any valid JS syntax is also TS syntax
* TS supports features that are not in JS
  + Static typing let x: number = 10
  + Interfaces and classes
    - More OOP capable
  + Return types
    - Never
    - Void
  + Access modifiers
    - Private
    - Public
    - Readonly
  + Generics
* TS cannot execute by itself
  + It must transpile into JS
  + That JS file can then be executed