Using the Tools of the Modern Web

PROGRAMMING WITH JAVASCRIPT

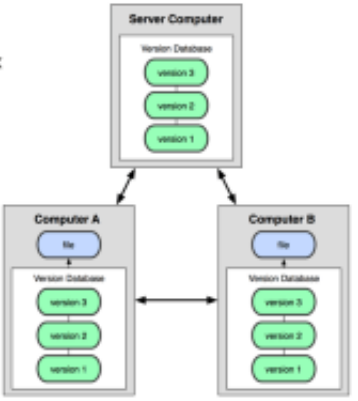
Introduction

- The Open Web Development Stack
  - Automation support and Continuous Development
  - Version control and package management
  - Working with the Command Line and Terminal
  - Continuous Development and a DevOps Methodology

2

Distributed Version Control Systems

- DVCS do not just check out the most local snapshot of a file
  - They mirror the repository
  - so each checkout is like a back



3

GIT as a DVCS

- GITs origin are in Linux Development and is open source
  - Its goals were to create a DVCS system that was:
    - Fast
    - Simple
    - Strong support for non-linear development
    - Fully distributed
    - Able to handle large projects like the Linux kernel efficiently

Demonstration – Installing GIT

- You can get GIT for all major platforms:

5

Node.js is an open source command line tool for server side JS.

The script is executed by the V8 Javascript engine.

NPM manages decencies for an application via the command line.

What is Babel

- A JavaScript compiler
- Can be used on its own, or with a task runner/module bundler
- JavaScript in – JavaScript Out
- Use tomorrow's JavaScript, yesterday
- Only transforms syntax – so for new globals (Set) and methods (Object.assign) we need to use the Babel Polyfill

7

Babel transpiles ES2015+ Syntax back to ES3+ syntax and they have created a polyfill to create the new globals and methods found in ES2015+. This means that tomorrow's JavaScript works in yesterday's browsers!

webpack

- webpack is a module bundler for modern JavaScript applications
- Entry points define where webpack starts. From here it builds a graph of your applications dependencies
- Output tells webpack where to emit the bundled code
- Loaders teach webpack how to handle assets that aren't JavaScript
- Plugins are used to perform actions and add custom functionality for our bundled code

Conclusion

- The Open Web Development Stack
  - Automation support and Continuous Development
  - Version control and package management
  - Continuous Development and a DevOps Methodology

Exercise

TRANSPILING TO ES5