

DEV LAB 1

TODAY

MP1 Overview

Setting up a development environment

Setting up a server

Brief overview of important tools

MP 1 was released yesterday.

<http://uiuc-web-programming.github.io/sp2016/MP-1/>

MP 1 Setup

<http://uiuc-web-programming.github.io/sp2016/Lab-1/>

SETUP AND WORKFLOW



Development Machine



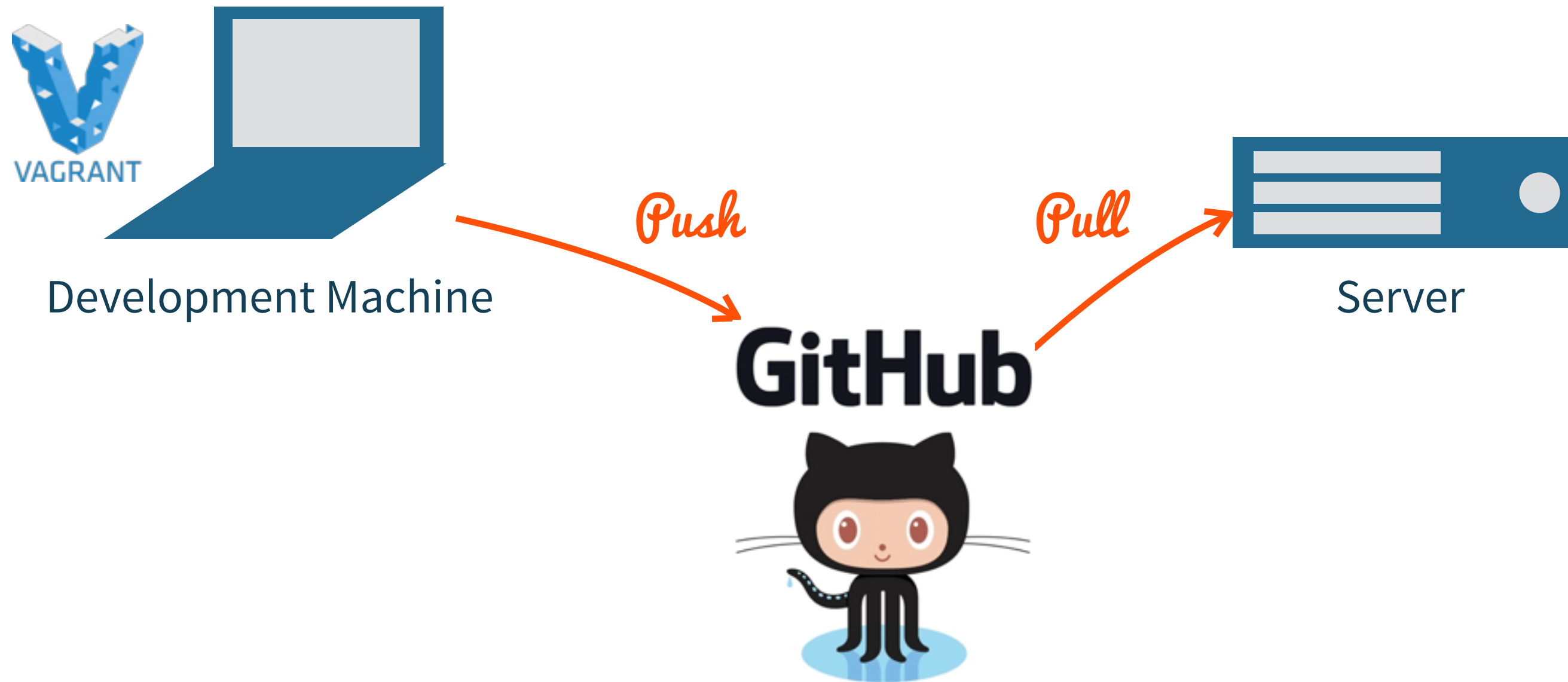
Server

Web applications end up on a server

Development is generally done on a local machine

<http://webdesign.about.com/od/servers/qt/web-servers-and-workflow.htm>

SETUP AND WORKFLOW



VAGRANT

Tool for creating virtual development environments

A **Vagrantfile** contains all the information about the environment

All developers on a project use the same exact environment for development



GITHUB

Everyone should have an account

Pointers to tutorials on Resources page

Apply for student developer pack

Watch important class related repositories



<https://github.com/uiuc-web-programming>

ADDITIONAL WORKFLOW OPTIONS

Have a development git branch

Add a staging environment

Example of a fairly elaborate git branching model

Use git-hooks for automation

Use git-hooks for deployment to server

TOOLS

WEBSTORM

Powerful IDE for JavaScript

Free for students

Alternative: Sublime Text 3

Learn to use Emmet - [Demo](#)



<https://www.jetbrains.com/webstorm/>

NODEJS

Platform that enables server side
JavaScript

Built on Chrome's JavaScript runtime

Event-driven, non-blocking I/O model



EXPRESS

Web server for Nodejs

We use express to serve static files for MP 1

Details in **app.js** in MP1 starter code

NPM

Node package manager

package.json file contains list of packages needed for a project

```
npm install <package_name>
```

```
npm install -g <package_name>
```

```
npm install --save <package_name>
```

```
npm install
```



<https://www.npmjs.com/>

BOWER

Package manager for front-end packages

bower.json file contains list of packages needed for a project

```
bower install <package_name>
```

```
bower install --save <package_name>
```

```
bower install
```



GRUNT

JavaScript task runner

Define tasks in **Gruntfile.js**

grunt <task>



NEXT CLASS: JAVASCRIPT II

courses.engr.illinois.edu/cs498rk1/