

# Introduction

Dylan Lane McDonald

CNM STEMulus Center  
Web Development with PHP

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# Outline

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  - Directory Organization
- 3 Software
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  - SCP & SSH
  - git

## About Dylan

I have been in IT for about 15 years. Highlights of my career include:

- Systems Administrator (2002 – 2004)
- MS/PhD student at Missouri University of Science & Technology (2006 – 2011)
- Java Enterprise Developer (2011 – 2013)
- Freelance Programmer (2006 – Present)
- Poker & Backgammon Player (1995 – Present)

Follow me:  @deepdivedylan

Anything else you'd like to know? Just ask me...

## About Rochelle

Rochelle Lewis: Web Designer and Front End Web Developer

<http://www.rochellelewis.com/>

Follow me:  @rochellelewisUXUI

### **Education:**

Major: Imaging and Photographic Technology.

Concentration: Commercial and Artistic Photography, Photojournalism.


Rochester Institute of Technology.

### **Previous Employment:**

Web Designer at Real Time Solutions, Albuquerque, NM.

Creative Director for Iron Core Kettlebells, San Diego, CA.

## About Jordan

- A full-stack web developer and designer. Does work in both the front-end and the back-end.
- Worked with three Cohort 12 students to build Red Rovr, a web application that tracks the Curiosity Rover throughout its journey on the Red Planet.
- Currently works part-time at Hermes Development building on the Genesis WordPress framework, and spends the rest of his time helping Deep Dive students succeed.
- Loves to build stuff—mostly cars and websites.
- Follow me:  @JordanVinAbq

# Organization

## Quote of the Day

*If I plan to learn, I must learn to plan.*

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Take thorough notes throughout the class. Computer Science by its nature is a very cumulative subject and topics will depend on and relate to one another. Divide your notes into the following sections:

# Organization

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- Knowledge Base
- Lexicon
- Vitæ



# Knowledge Base

The knowledge base section will house all the technical topics presented in class. This includes but is not limited to:

- HTML Tags
- PHP Functions
- JavaScript Functions
- Code Samples

The knowledge base will build over time and will serve as a valuable reference both during the class and after graduation.

# Lexicon & Vitæ

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The vitæ section will contain a collection of people who have made important contributions to computer science and web design. Knowing these people is significant to knowing how web design and progressed and why different choices were made by these people.

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## Definition

**scalability** *is the ability of a system, network, or process to handle a growing amount of work in a capable manner or its ability to be enlarged to accommodate that growth. [1]*

Good organization fuels scalability. Lay a foundation upon which future development can commence.

# Directory Organization

Each project should contain one or more directories. Each directory should contain files that fill a similar role in the project.

Directory Name	Suggested Contents
images	Image files
lib	Supporting PHP code
etc	Configuration files
js	JavaScript files
css	CSS files

Table 1: Suggested Directory Names & Contents

# Directory Organization

Table 1 contains common directory names and what files one would expect to find in each directory. As files start to number in the hundreds and in the thousands (even the hundreds of thousands), directory organization is critical.

These directory names are common names, but by no means the only possible names. Let the project dictate the need for directory names. Above all, make sure the directory organization of the project enhances scalability.

# Software

Every software developer needs the proper tools in their tool kit. Among these are:

- **Integrated Development Environment:** program to perform common development tasks, including:
  - **Code Editor:** main window in the IDE that allows one to edit code
  - **File Transfer Client:** subsystem to copy & synchronize files on the server
  - **Unit Test Runner:** subsystem to execute tests and verify code works as designed
  - ...and so much more!
- **Web Server:** daemon to interpret & serve PHP code
- **git:** Program to synchronize source code among team members

In this class, we will be using all these tools.



# xAMP

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The *x* in the xAMP platform denotes which operating system the AMP stack is running. Specifically, *L* is Linux, *M* is Mac, and *W* is Windows. So, AMP running on Linux is LAMP.

SSH is a mnemonic for **S**ecure **SH**ell. SCP is SSH's file transfer subsystem. SSH is used very commonly in real world deployments and all commands and file transfers conducted are fully encrypted & secure. To use SSH, one needs:

- Username
- Password and/or SSH key
- Server to Connect to

SSH keys, while requiring more effort to setup, are recommended over passwords because they are more secure and can be used to authenticate to multiple systems.

# git

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git will be covered in great detail later this week. For now, we will install and test git and sign up for GitHub.

## Works Cited



Wikipedia.  
Scalability.

[http://en.wikipedia.org/wiki/Scalability.](http://en.wikipedia.org/wiki/Scalability)