**terminal**

**using the command line**

# terminal

## basic terminal concepts

Windows users

Install Git Bash at:

[http://git-scm.com/downloads](http://git-scm.com/downloads)

use Git Bash (included with Git) for all Terminal interactions.

Start Menu -> Programs -> Git -> Git Bash

What is the Terminal?

An interface to a 'lower-level' of your computer than the Graphical User Interface (GUI)

Similar to older computer systems without a GUI

- Every command must be typed in

- The mouse is not used to interact with the terminal

Why are we learning about the terminal?

Advanced programming isn't possible without using terminal

Some programs for development only run from within terminal

note: practice your skills as you go! (required skills!)

What can you do with the Terminal?

Quickly navigate around your computer's file system

Run command-line-only programs like Git and your own web server

Monitor and manage servers and databases via terminal console windows

Monitor the processes running on your computer and have control over them

Basic Terminal Commands

master how to navigate around your file system using the terminal.

open Terminal (mac)

command space, type Terminal, then Enter.

open Terminal (Windows)

note: Git BAsh downloadable at git-scm.com

Git Bash

## commands

command example:

$ brew install git // translation: "use brew process to install git"

anatomy of a command

statement -- first word (the "verb" of the command)

flag -- "options" for the command

one dash ("-") -- flag is a letter (e.g. -r = recursive)

two dashes ("--") -- flag is a word (e.g. --all)

argument(s) -- "targets" for the command (file name, url, etc.)

syntax

$ // command line prompt

$ command // command keyword

-r // flag (-r: "recursive")

output (or "side effect")

result of commamd

not all commands have output (no output = successful command)

errors

command patterns

*doSomething ‐‐how toFiles*

*doSomething ‐‐how sourceFile destinationFile*

Re-entering commands

To re-enter a command you've entered on the command line recently, press the up arrow

UP ARROW

command history

Your history of commands is preserved within the session you're currently in

Once you restart the terminal, you'll lose this history

## basic terminal commands

great command cheatsheet: https://gist.github.com/poopsplat/7195274

~ navigate to highest system level (user)

cd <dirname> change to <dirname> directory

ls list (list files/directories in current directory)

ls -a show all files including hidden files

ls -l show all files in list format with permission settings

pwd print working directory (show path to current location)

mkdir <dirname> make new directory

touch <filename> make new file

rm <filename> remove file

rm -r <dirname> remove directory and everything in it (recursively remove contents)

cp <source> <target> copy (source file to target file)

mv <source> <target> move (source file to target file)

mv index.html ~/Desktop/project\_folder

rename file also uses move command

mv <source> <target> rename (source file to new file name)

mv index.html about.html

atom . open atom with all files in current directory

-r recursive

find ~ -name <file> find file by name in root directory (or other directory e.g. /home/username/)

find ~/heroku

## terminal shortcuts

ctrl‐c -- Cancel previous typing

ctrl‐e -- go to end of line

ctrl‐a -- go to beginning of line

up/down arrows -- cycle through previous/next commands

TAB -- auto-complete file/dir name after typing first few letters

$ De => TAB => Desktop

## paths

absolute

start with "/"

contain all directories from root to specified location

shortcut: "~" (tilde) = /users/your‐mac‐username // macs

example:

/users/thomasbeach/Desktop/NYCDA/lessons

example:

~/Desktop/NYCDA/lessons

relative

"./" -- "relative to current folder"

"../" -- "go up one level"

"../../" -- "go up two levels"

# development environment

directory for class

WDIclass

|\_ARCHIVE

|\_assignments

|\_projects

|\_docs

|\_notes

|\_starters

|\_workflows

directory for javascript projects/assignments

rootDirectory

|\_index.html

|\_styles.css

|\_script.js

|\_images

| |\_logo.png

|\_DEV

|\_pseudocode.js

|\_codeDump.html

|\_codeDump.css

|\_codeDump.js

|\_ARCHIVE

directory for computer (your user account)

root

|\_\_Applications

|\_\_Downloads

|\_\_Desktop

|\_\_WDI

|\_\_ARCHIVE

|\_\_STARTERS

| |\_\_index.html

| |\_\_styles.css

| |\_\_script.js

|\_\_WORKFLOWS

| |\_\_sinatra

| |\_\_github

| |\_\_rails

|\_\_Projects

|\_\_Homework

|\_\_Exercises