

Week 1, Lesson 1

Introductions, Tools
and the Command Line



Introductions

Welcome to DigitalCrafts!

Take 5 minutes to think about the following questions:

- Why are you here?
- Look at your phone keyboard. What is the first Emoji?
- When was your first experience with computers?



Tools

You can't build without the
right tools!

Lesson Goals:

- Install Homebrew
 - iTerm
 - Google Chrome
 - VS Code

Tools to Install

1. Install Homebrew

<https://brew.sh>



```
~ $ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"  
==> This script will install:  
/usr/local/bin/brew  
/usr/local/share/doc/homebrew  
/usr/local/share/man/man1/brew.1  
/usr/local/share/zsh/site-functions/_brew  
/usr/local/etc/bash_completion.d/brew  
/usr/local/Homebrew  
==> The following new directories will be created:  
/usr/local/Frameworks  
==> The Xcode Command Line Tools will be installed.  
  
Press RETURN to continue or any other key to abort
```

Installing Homebrew

Tools to Install

1. Install Homebrew
2. Use Brew to install
 - iTerm
 - Google Chrome
 - Visual Studio Code

```
https://brew.sh
```

```
brew cask install ...
```

```
... iterm2
```

```
... google-chrome
```

```
... visual-studio-code
```

Console

A developer's
command center

Lesson Goals:

- Understand basic commands and options
- Be able to navigate terminal
- Be able to CRUD files
- Understand Variables

Basic Commands

<code>pwd</code>	Prints the current <i>Working Directory</i> .
<code>ls</code>	Lists everything in the current directory.
<code>cd</code>	Changes the current <i>Directory</i>
<code>mkdir</code>	<i>MaKes</i> a new <i>DI</i> Rectory 'here'
<code>cp</code>	Copies a file or directory
<code>mv</code>	<i>Move</i> /rename a file or directory
<code>rm</code>	<i>Removes</i> a file or directory
<code>touch</code>	Creates a new file here
<code>more</code>	Show file contents one page at a time
<code>less</code>	Views a file with controls
<code>cat</code>	Dumps a file to stdout
<code>man</code>	Open the 'man' page for the given command
<code>echo</code>	Repeats what you type to stdout
<code>wc</code>	Counts the number of words in a file



Special Characters



.

When referring to directories, dot is the current working directory

..

When referring to directories, double dot is the parent directory

" "

Partial Quote (special characters need escaping)

' '

Full quote (nothing needs escaping - except another ')

\

Escape the next character

Exercise 1

Create the following directory structure:

- ~ (your profile folder)
 - digitalcrafts
 - projects
 - CLI101
 - hello.txt
 - mysite
 - index.html
 - files
 - question1.txt
 - question2.txt
 - question3.md
 - <your-name>.info
 - remove-me-1.txt
 - remove-me-2.txt



More Special Characters



>	Redirect the stdout of the command and truncate
>>	Redirect the stdout of the command and append
-	Specify an option for the command
--	Specify a verbose option for the command
\$(...)	Substitute command for its output
	'Pipe' the output of the last command into the next

Exercise 2

NO TEXT EDITORS

1. Place the words "hello world" into `hello.txt`
2. Place the string `<html></html>` into the `index.html` file
3. Insert the answers to today's questions with your name into these files:
 - a. `question1.txt`
 - b. `question2.txt`
 - c. `question3.md`
4. Finally, append some more detail into `question2.txt` without deleting its current contents.



`grep`

Finds stuff in files using regular expressions

`find`

Finds files and directories that match patterns

`xargs`

Executes commands on lines from standard input

Exercise 3

From inside the files directory, use a pipeline to display files with only your name in it.

Next, use a pipeline to dump the contents of a file and search for a specific keyword (you may look at the contents of the file if you can't remember a word to look for).



Variables

Setting Variables

Local Variables

Global Variables

Bonus Exercises

Count

Use xargs to count the number of words in all text files in your project directory.

Delete

Use xargs to remove all files with remove-me in their name.

Be very careful or you might blow everything away. Go iteratively, adding one command to the pipe at a time and add the xargs only when you're satisfied you have the correct target.

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