CS196

Week 1

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What’s the goal of this CS?

Build products that you or other people find useful

How do we reach people to achieve this goal?

Mobile Apps

Websites

Desktop Apps

What does this class focus on?

Redux

Next

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Frontend

Flask

React

REST

GraphQL

Backend

Database

UI Design

Microservices

Solid foundation in web dev

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Expose you to different technologies

Give you the tools to build thing ideas you have

How does this class work?

30 minutes for lecture

10 min to explain assignments

20 min to work on it

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How do grades work?

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100 % Attendance

Couple Intro things:

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Text Editors

Bash

Git

Sublime

- Simple UI
- Fast
- Syntax completion/ shortcuts
- Customization
- No git plugin

https://www.sublimetext.com/3

Visual Studio

- Fast
- Git integration,
- Integrated Terminal
- Plugins for customizable features

https://code.visualstudio.com/Download

Atom

- Smooth UI
- Packages
  - Linters
  - Git
- Customization
- Slow though
- Computer Testing Center at UIUC has Atom installed

https://atom.io/

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Set up

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- Windows
  - Bash on Ubuntu or Windows
- Mac or Linux
  - Terminal

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FileSystem Commands

Allows you to create and delete files/folders from terminal instead of dragging and dropping

ls list the files and folders inside of the current directory

mkdir make a new directory

cd change directories

rm -rf remove a specified directory

```
172.16.138.158 $ pwd
/Users/ariamalkani/Documents/WebHackerspaceLectures
172.16.138.158 $ mkdir example
172.16.138.158 $ cd example
172.16.138.158 $ pwd
/Users/ariamalkani/Documents/WebHackerspaceLectures/example
172.16.138.158 $ cd ..
172.16.138.158 $ ls
drwxr-xr-x  2 ariamalkani  staff   68 Aug 25 17:06 example/
172.16.138.158 $ rm -rf example
172.16.138.158 $ ls
```

mv moving a file/directory to another file/directory

cat displayed the contents in terminal

cp copies a file to another filer/directory

rm removes a file

echo displays something to terminal

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```
172.16.138.158 $ mkdir example
172.16.138.158 $ mkdir example2
172.16.138.158 $ ls
drwxr-xr-x  2 ariamalkani  staff   68 Aug 25 17:16 example/
drwxr-xr-x  3 ariamalkani  staff  102 Aug 25 17:15 example2/
172.16.138.158 $ mv example example2
172.16.138.158 $ cd example2/
172.16.138.158 $ ls
drwxr-xr-x  2 ariamalkani  staff  68 Aug 25 17:06 example/
172.16.138.158 $ cd ~
172.16.138.158 $ vim hi.txt
172.16.138.158 $ cat hi.txt
Hello World!
172.16.138.158 $ cp hi.txt example
172.16.138.158 $ cd hi.txt
172.16.138.158 $ ls
-rw-r--r--  1 ariamalkani  staff  3 Aug 25 17:19 hi.txt
172.16.138.158 $ rm hi.txt
172.16.138.158 $ ls
172.16.138.158 $ echo bunnies
bunnies
```

Package Managers

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- Windows (Bash), Ubuntu/Debian -

$ sudo apt-get install <package-name>

- Mac -

Google ‘homebrew’

Install it

$ brew install <package-name>

Extra commands

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$ sl

$ cowsay

$ fortune

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Github

Your Version Control System

Installation Instructions

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Step 1: Make an account

Step 2: Download

Mac

brew install git

Windows/Linux

sudo apt-get install git

git clone <link copied>

cd <repo name>

git add <filename>

git status

git commit -m “<commit messsage>”

git push

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git pull

git checkout -b <branch_name>

git checkout <branch_name>

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Making a pull request

Commenting

Merging

Languages of the Web

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HTML Hypertext Markup Langauge

CSS Cascading Style Sheets

JS Javascript

HTML

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Markup Language made up of tags

Defines the structure of the data

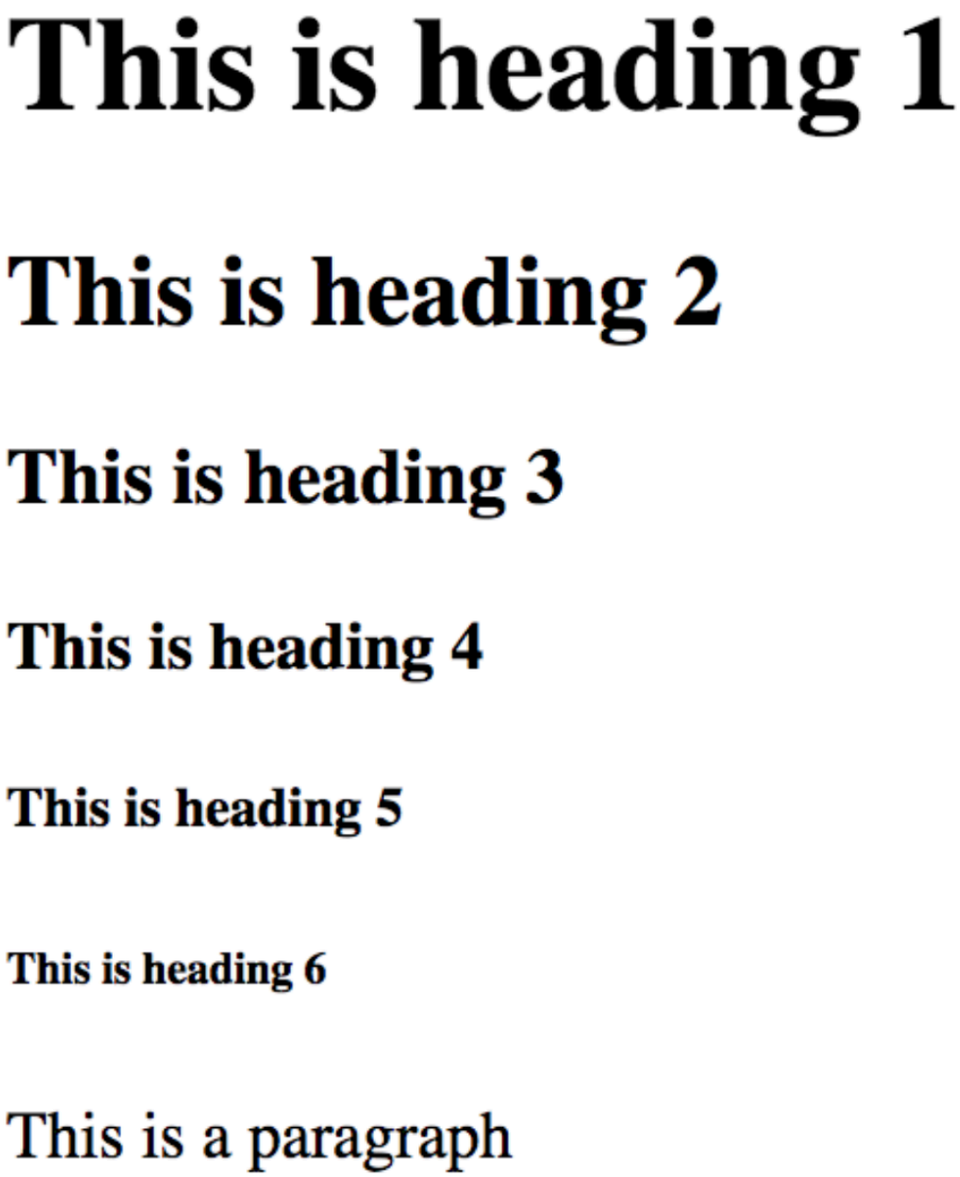
<html> </html>

```html
<!DOCTYPE html>
<html>
<body>

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

<p>This is a paragraph</p>

</body>
</html>
```



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Inline Tags

- Do not usually create a new line
- Takes only the width of what it's surrounding
- Also called **"Text Level Tag"**
- Ex: (Try one of these on your "hello world" text and see what it does)
  -
  -

Block Tags

- Always starts a new line
- Takes up the full width available
- Ex: (Add another block tag after the tag surrounding "hello world")
  -
  - <h1></h1>

File Level Tags

- Provides structure for your webpage
- Ex:
  - <html></html>
  - <head></head>
  - <body></body>

IMPORTANT

Tags must be fully nested inside each other

 hikok does not work bc it is not fully contained

Links

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A local file

```
<a href =“saltBae.html”>Salty</a>
```

A url

```
<a href= “www.saltBae.com”>Salty</a>
```

Images

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If you want a url just put the link in the “src section”

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Assignment for Attendance

Make a PR to add your name to the list of students

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See You Next Week!