

Introduction to Programming

Class 1, 5 January 2017

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Goals for Today's Class

Goal 1: You will understand that programming is for you (and everyone else).

Goal 2: You will know the expectations of this class.

Goal 3: You will know a little bit about the people in this class.

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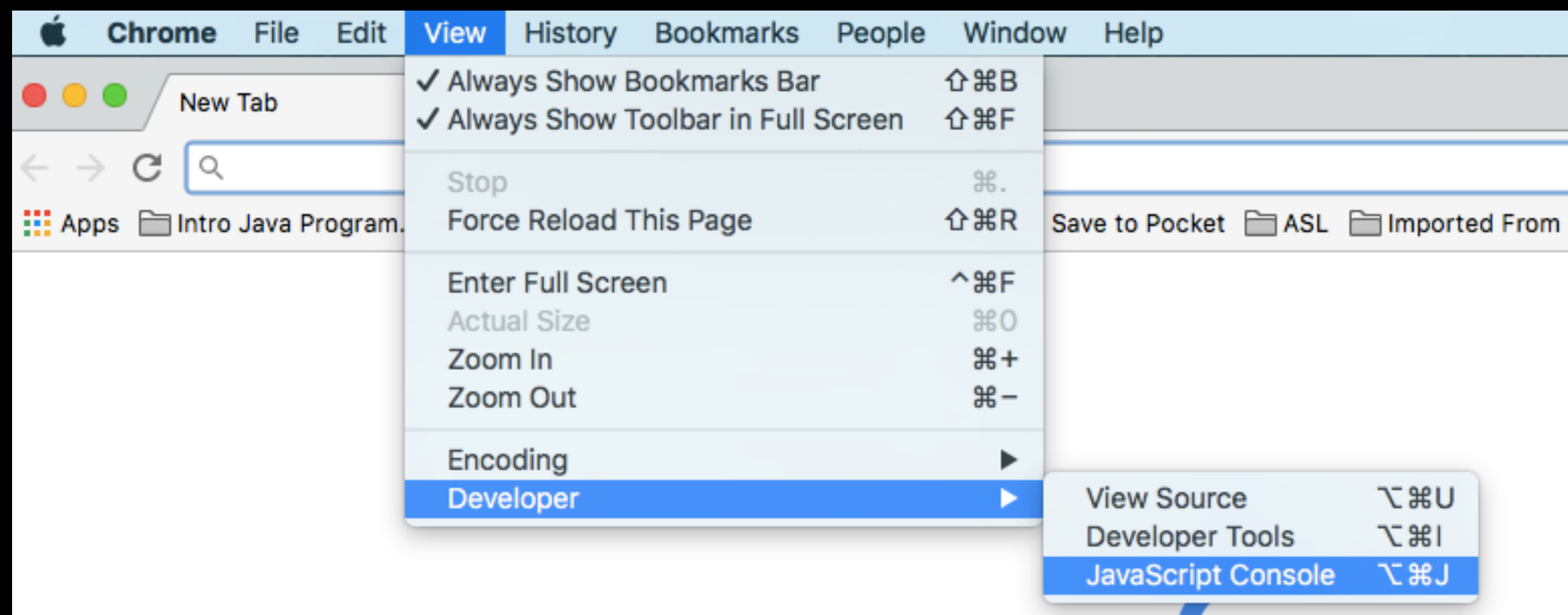
Line Up / Pair Up

1. Line up by birthday
2. Count off by 2 and pair up
3. Sit with your partner. Computers closed.
4. Share your name and grade.
5. Share a movie you have seen three or more times.

Goal 1: You will understand that programming is for you (and everyone else).

Hack the Web

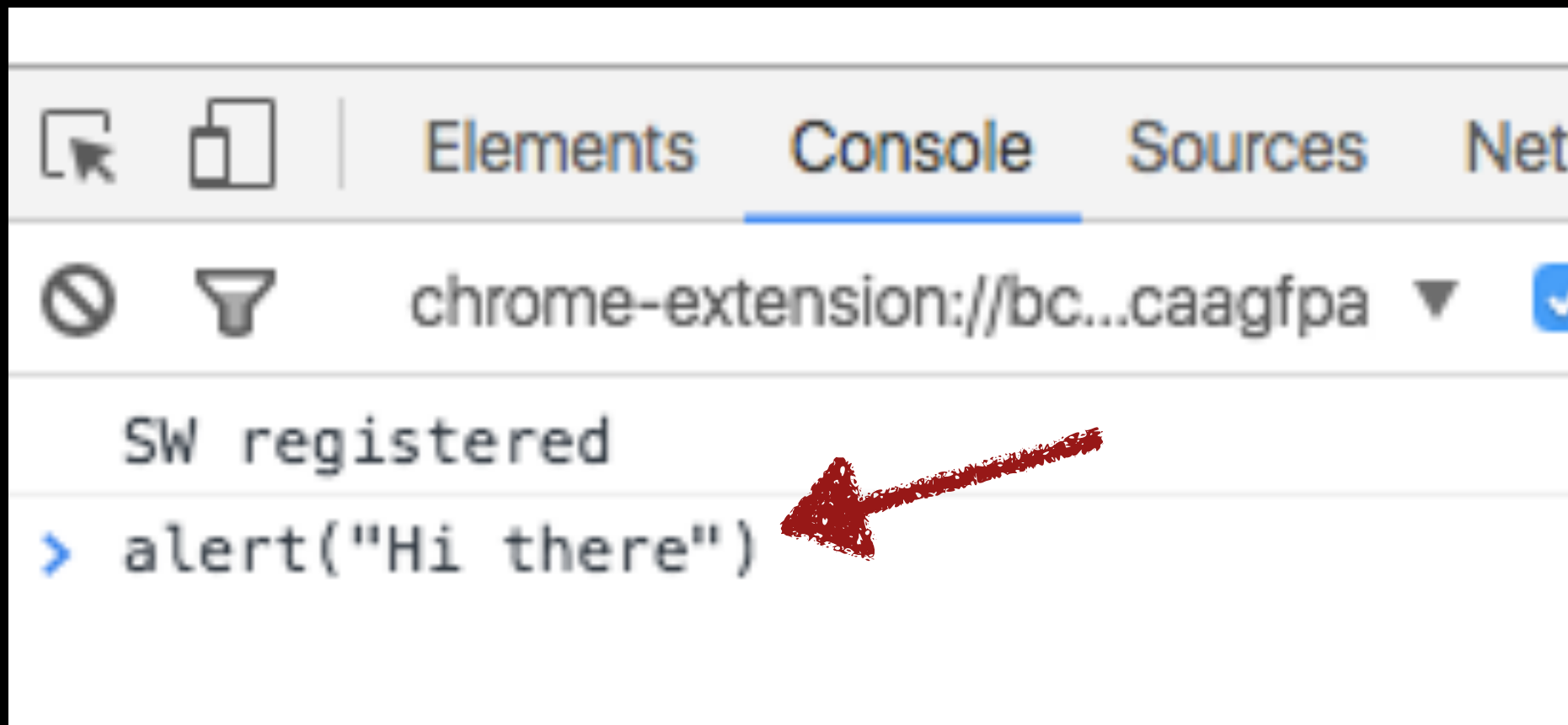
1. Open one computer per pair.
2. Open up chrome browser. (If neither of you have it, open safari and download).
3. Open up the JavaScript Console (Cmd+Alt+J).



Goal 1: You will understand that programming is for you (and everyone else).

Hack the Web

4. Type the following into the console, followed by return



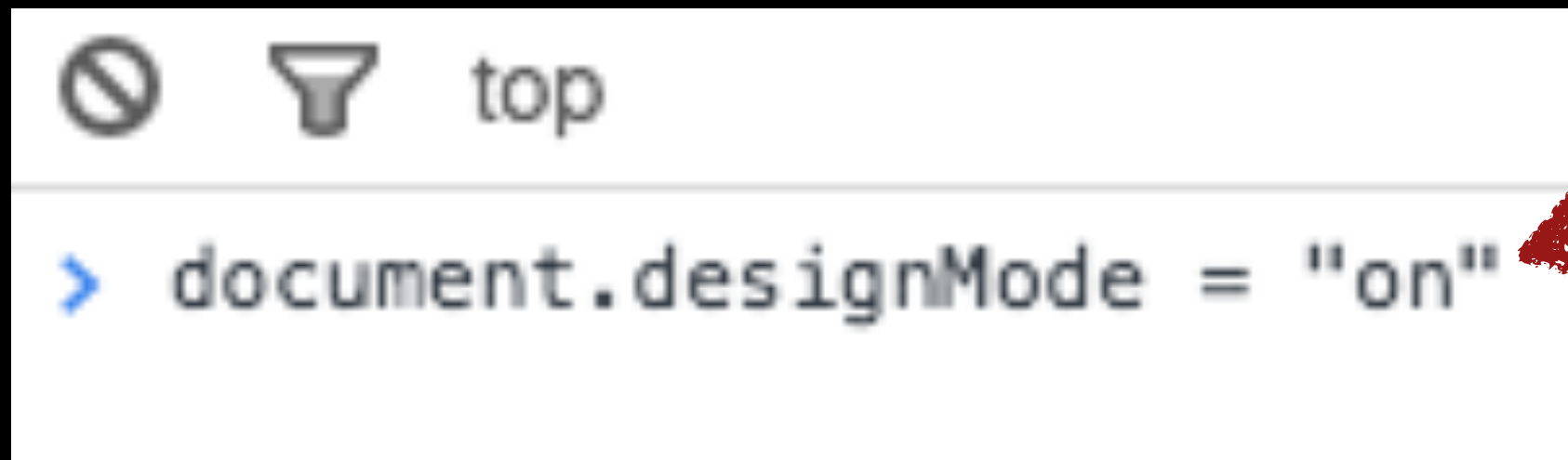
5. Change parts of the expression. Play around! What do you notice?

Goal 1: You will understand that programming is for you (and everyone else).

Hack the Web

6. Go to the URL: `https://en.wikipedia.org/wiki/The_American_School_in_London`

7. Type the following into the console, followed by return

A screenshot of a web browser's developer console. At the top, there are icons for a blocked site, a filter, and the word 'top'. Below this, a blue prompt character '>' is followed by the text 'document.designMode = "on"'. A red arrow points from the right side of the image towards the end of the code line.

```
> document.designMode = "on"
```

8. Hack the page. What can you change? What happens if designMode is equal to “off”?

Goal 1: You will understand that programming is for you (and everyone else).

Hack the Web

7. Type the following into the console, followed by return

```
> window.open("http://www.asl.org")
```

8. Open the JavaScript Console in the new page.

9. Scroll down the page until you see the Core Values



Goal 1: You will understand that programming is for you (and everyone else).

Hack the Web

10. Type the following into the console, followed by return



```
missionbuttons.innerHTML = ''
```

11. What did you notice? Can you find another image URL to further the hack?

12. The Core Values are identified with “**missionbuttons**”. The navigation bar at the top is called “**content1313**”. Can you hack the nav bar?

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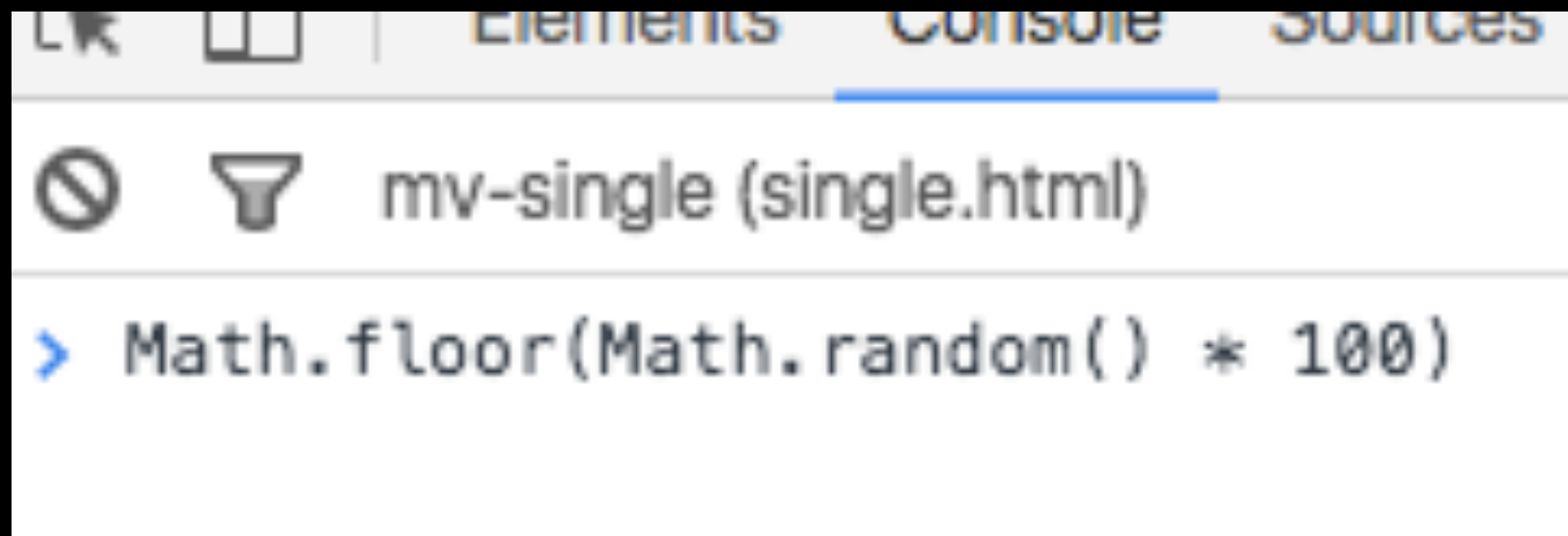
Goal 1: You will understand that programming is for you (and everyone else).

Congratulations! You can program.

Goal 3: You will know a little bit about the people in this class.

Line Up / Pair Up JavaScript Style

1. Each person should execute the following in the console. Remember your number.



2. Line up in ascending order.

3. Count off by 2 and pair up

4. Sit with your partner. Computers closed.

Goal 3: You will know a little bit about the people in this class.

Line Up / Pair Up JavaScript Style

5. Interview each other for the following information

- Why were you named your name?
- Favorite app
- Programming experience
 - 0 - No experience
 - 1 - Some experience
 - 2 - A lot of experience

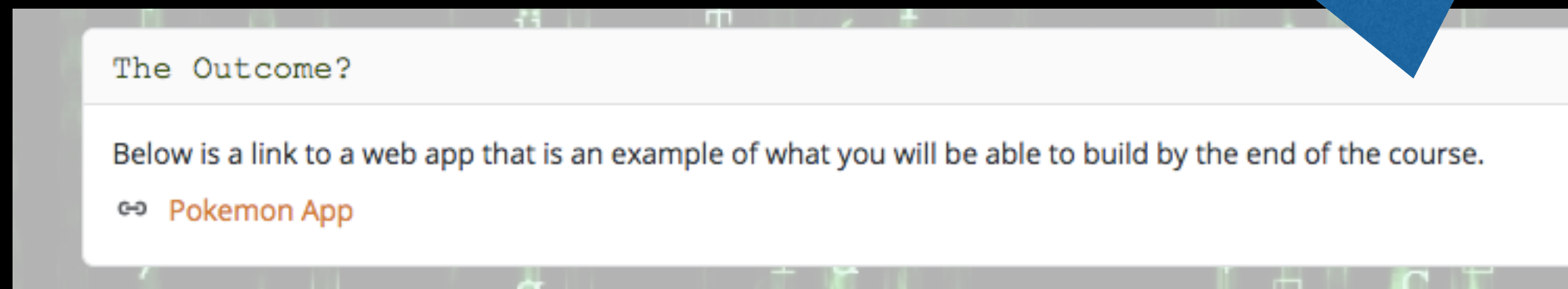
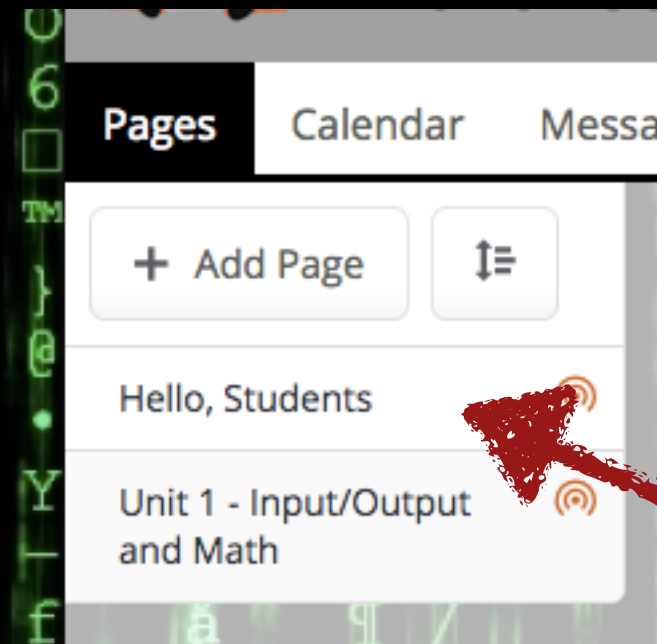
6. Share with the class for your partner.

- Name
- Grade
- Favorite app
- Programming experience
 - 0 - No experience
 - 1 - Some experience
 - 2 - A lot of experience

Goal 1: You will understand that programming is for you (and everyone else).

Where we're headed

1. On one computer, go to Haiku -> Hello, Students -> Pokemon App



2. Play around with the app.

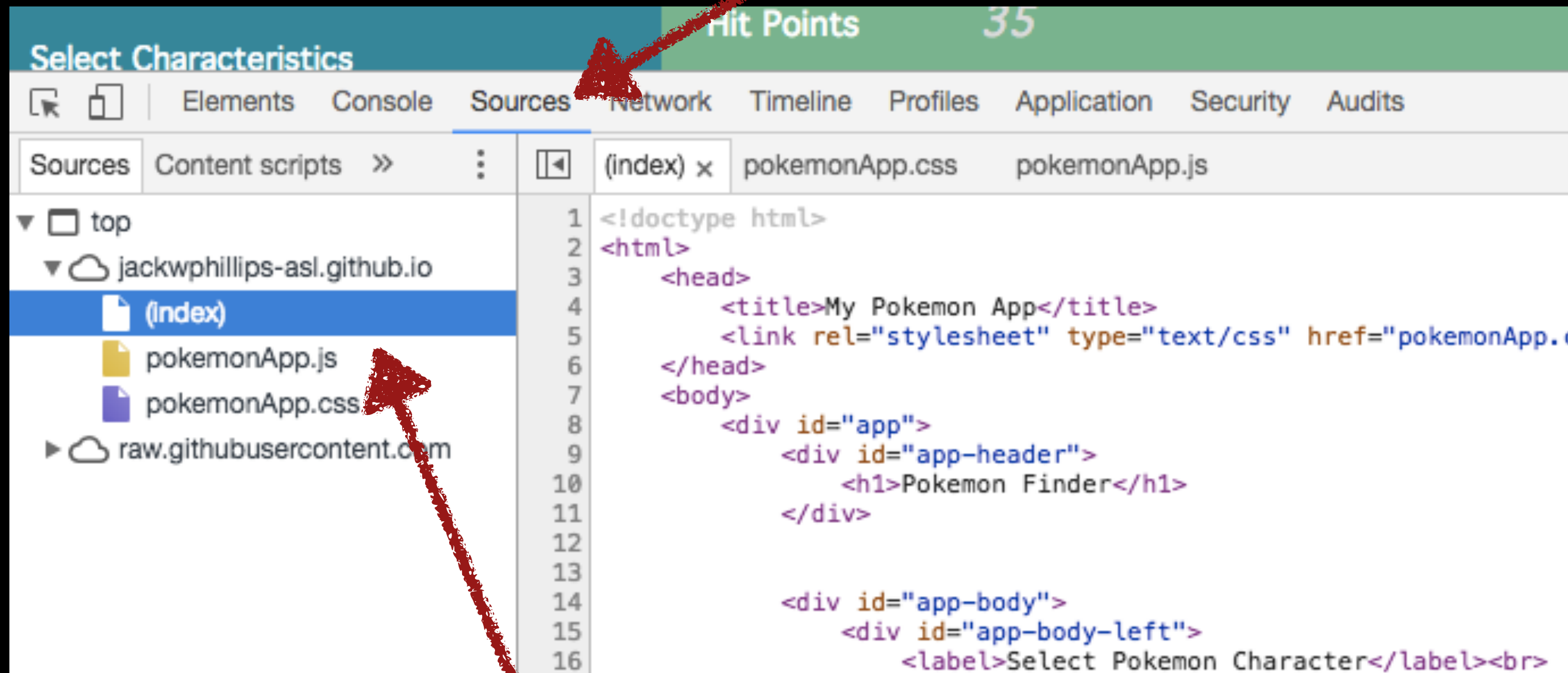
Pilot 1

Goal 1: You will understand that programming is for you (and everyone else).

Where we're headed

1. Go to the JavaScript console.

2. Go to the "Sources" tab.

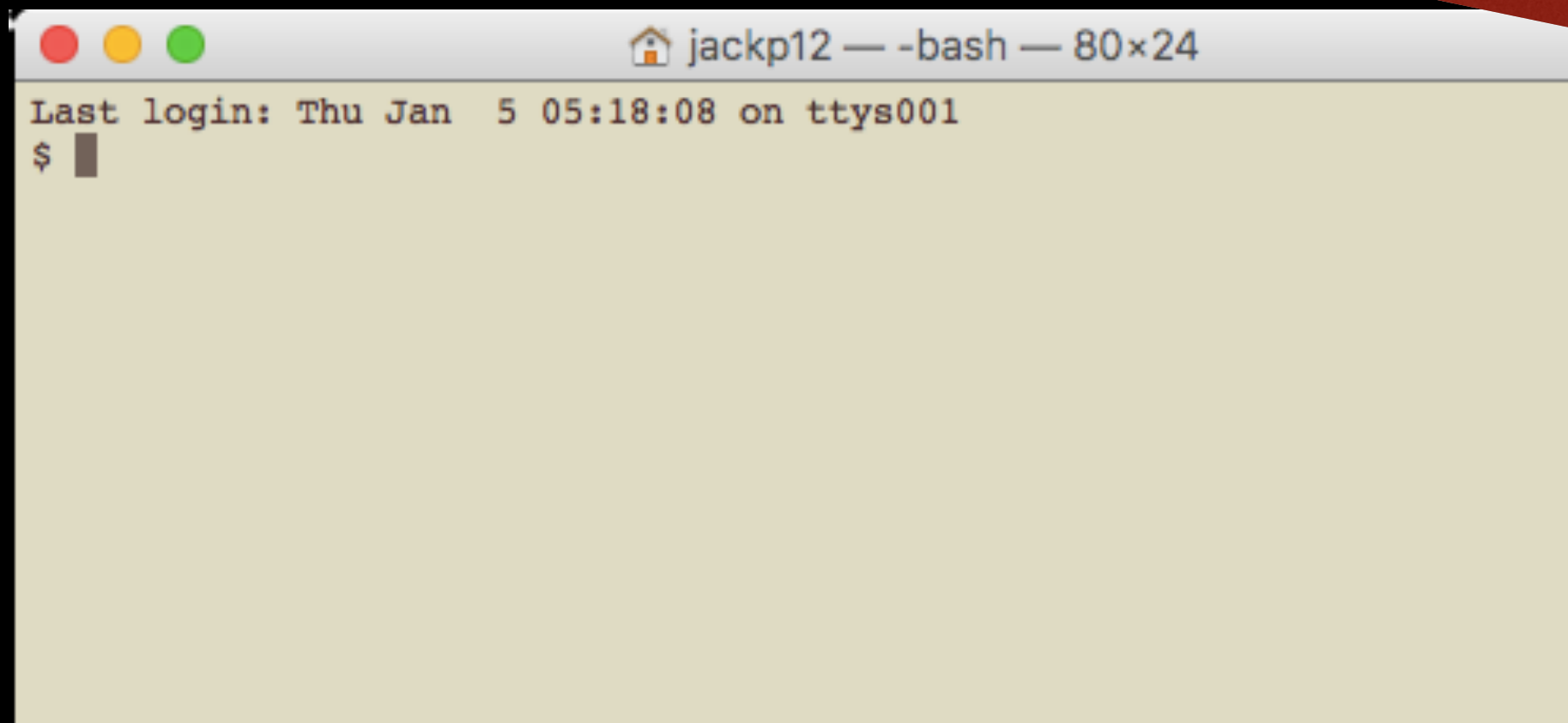


3. Explore "index", pokemonApp.js, pokemonApp.css

Goal 1: You will understand that programming is for you (and everyone else).

The Command Line

1. In Spotlight, open Terminal.app



Pilot 2

Goal 1: You will understand that programming is for you (and everyone else).

BIG WORD(S) ALERT

The Command Line

An application that allows you to control your computer by giving it text commands.

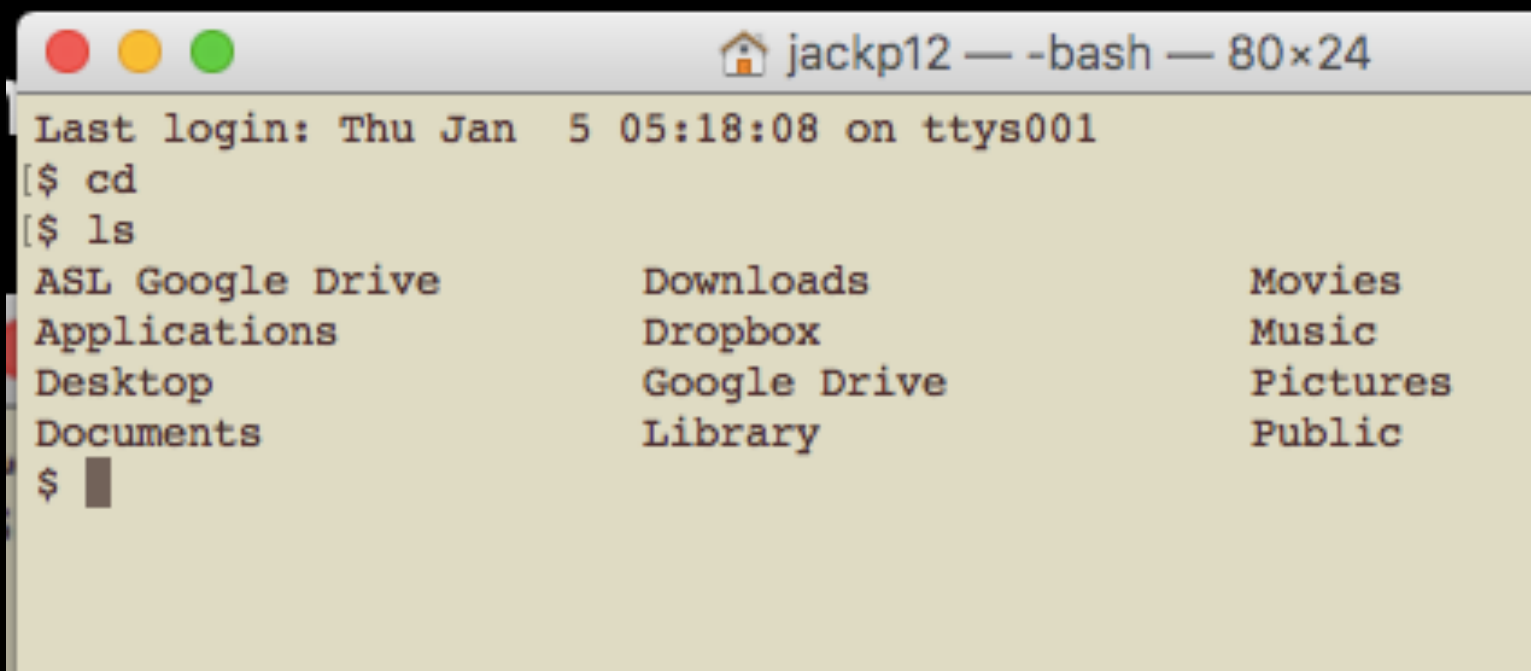
Goal 1: You will understand that programming is for you (and even your dog)

Your home directory (aka folder)

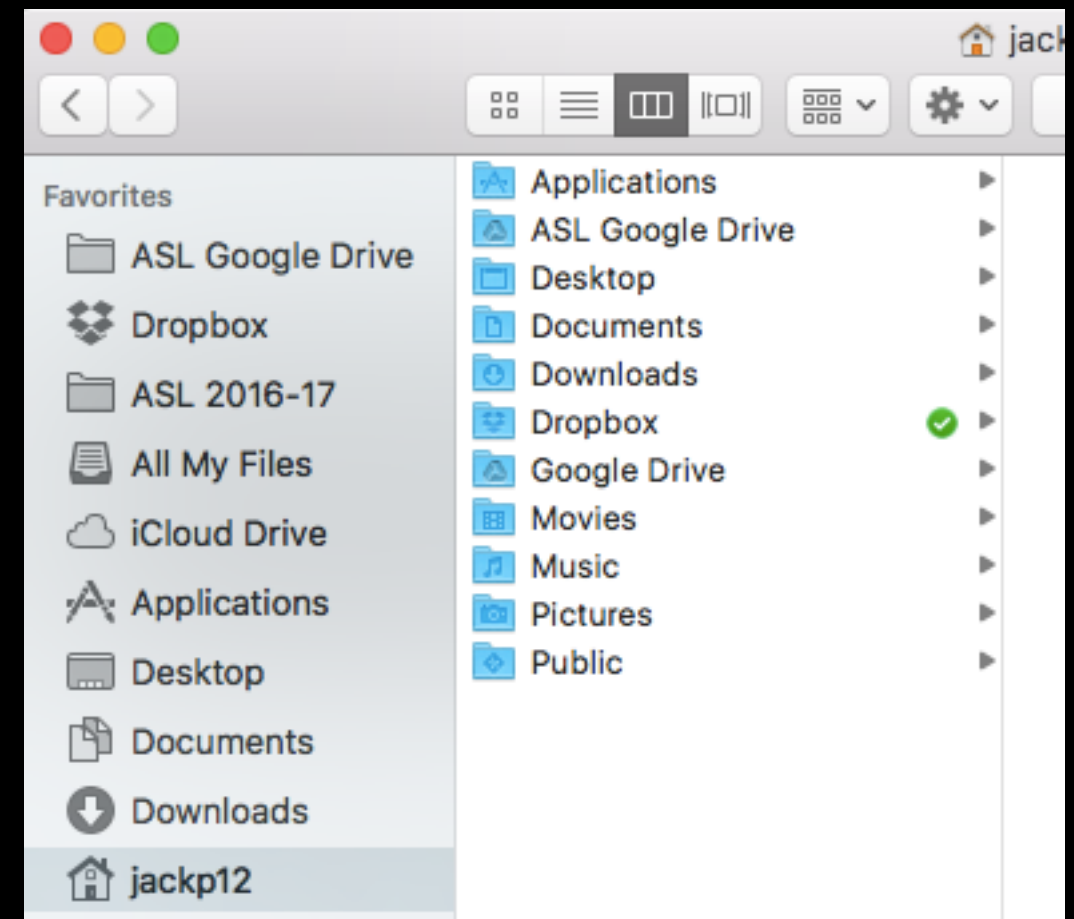
Command Line

Finder

Pilot 1



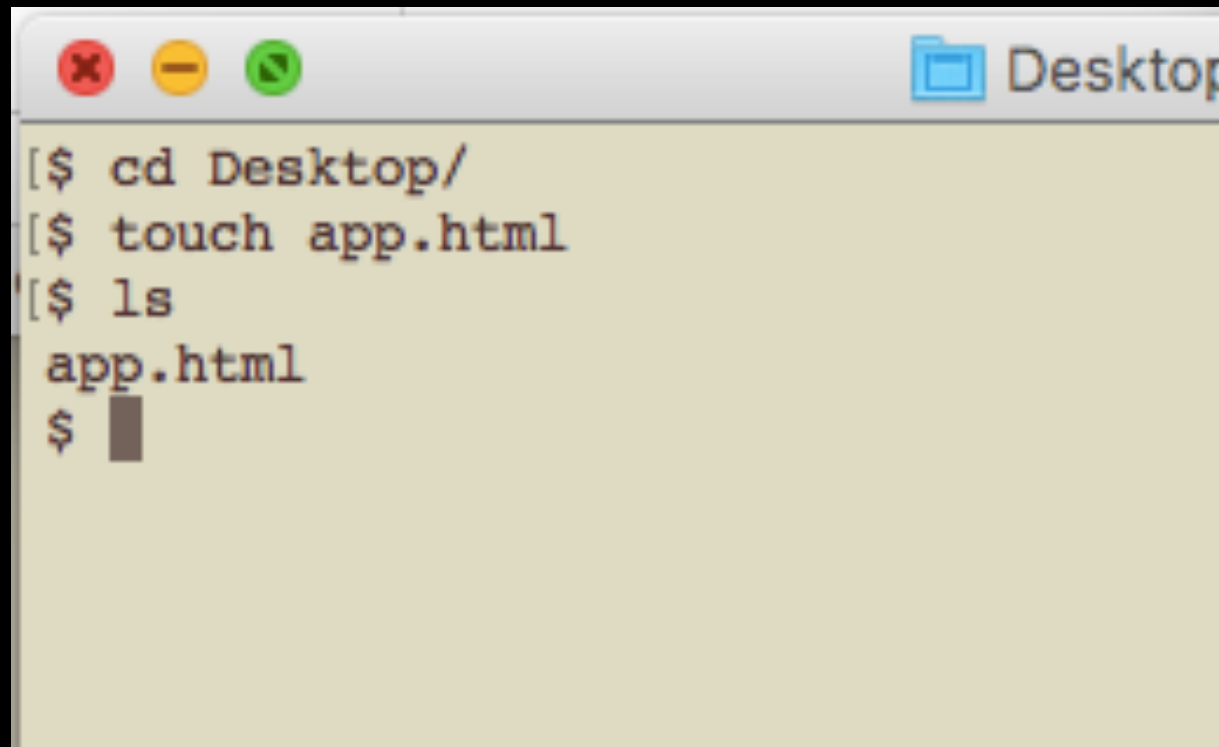
```
jackp12 — -bash — 80x24
Last login: Thu Jan  5 05:18:08 on ttys001
[$ cd
[$ ls
ASL Google Drive      Downloads      Movies
Applications          Dropbox        Music
Desktop               Google Drive   Pictures
Documents              Library        Public
$
```



Goal 1: You will understand that programming is for you (and even for your dog)

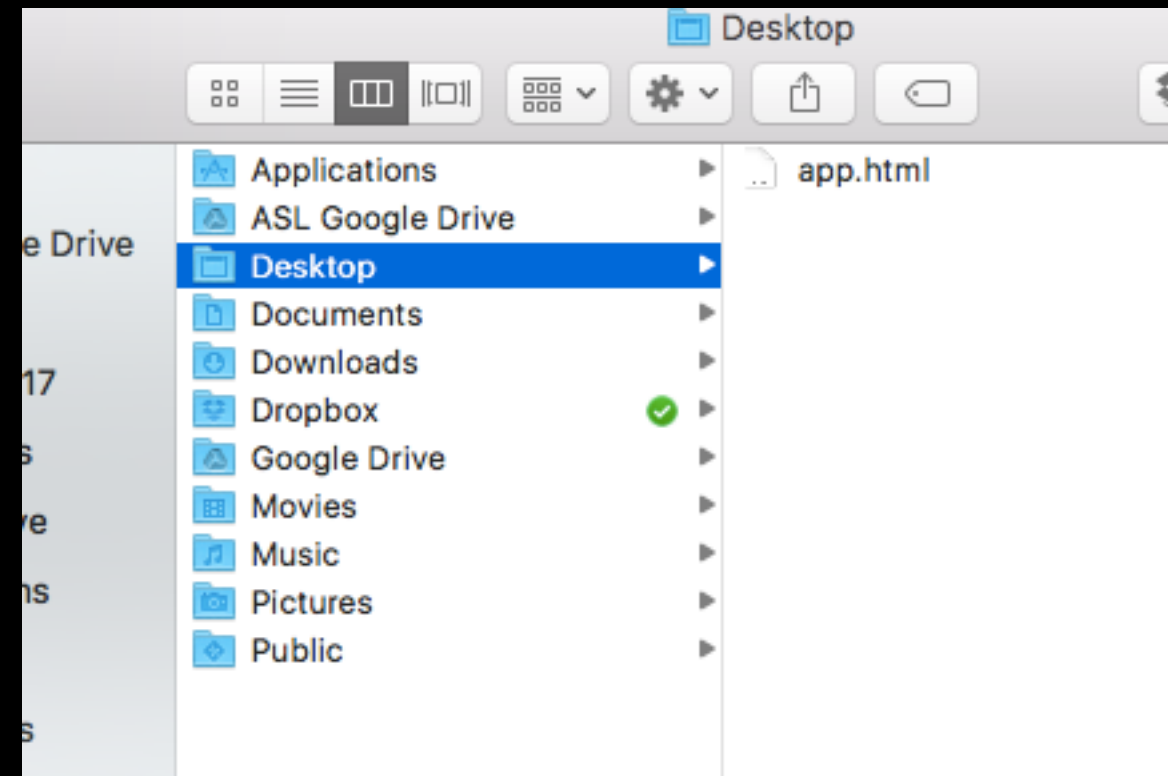
Create a new file on your desktop called app.html

Command Line



```
[$ cd Desktop/  
[$ touch app.html  
[$ ls  
app.html  
$
```

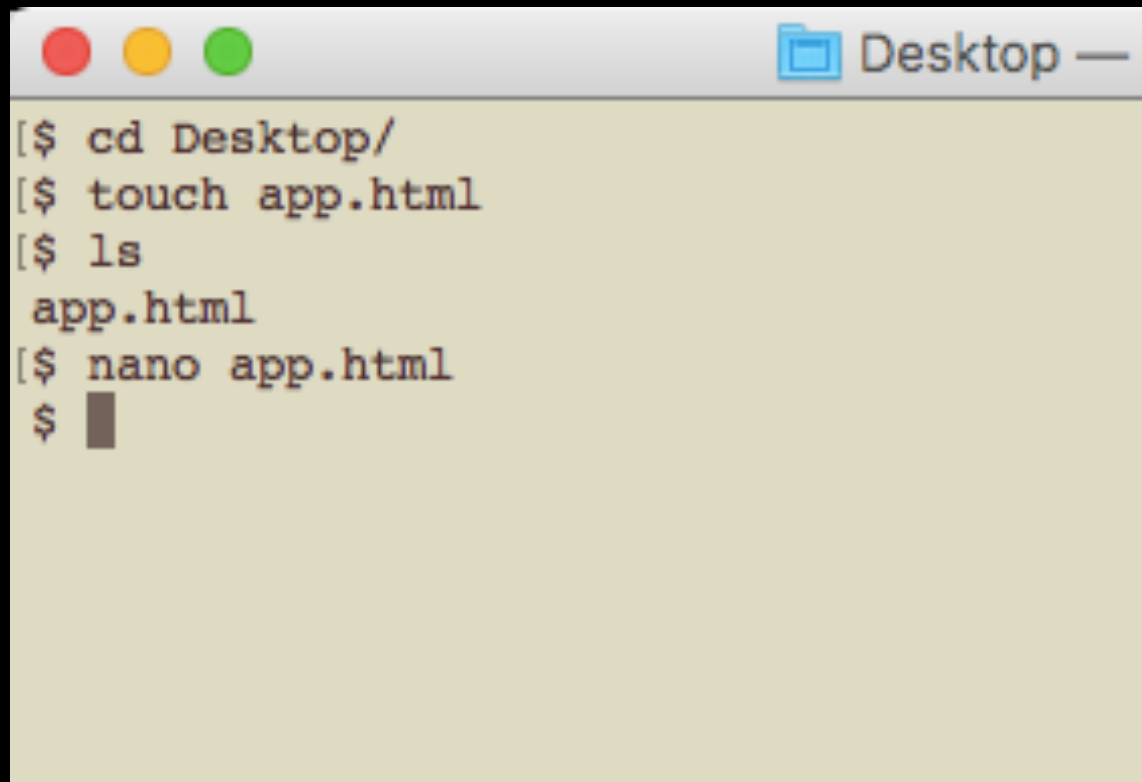
Finder



Goal 1: You will understand that programming is for you (and even for your dog)

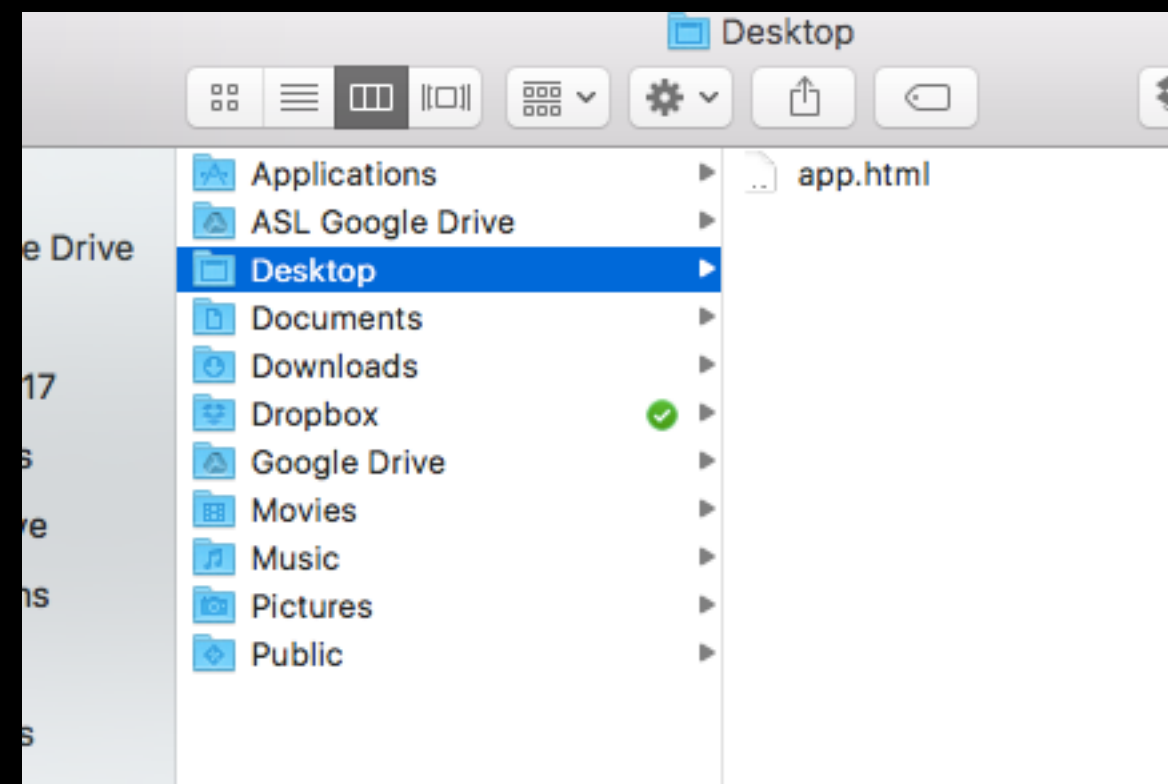
Create a new file on your desktop called app.html

Command Line

A screenshot of a macOS Terminal window titled "Desktop". The window has a yellow background and shows a series of commands being entered at the prompt. The commands are: `cd Desktop/`, `touch app.html`, `ls`, and `nano app.html`. The output of `ls` shows `app.html`. The cursor is at the prompt `$` after the `nano` command.

```
[$ cd Desktop/  
[$ touch app.html  
[$ ls  
app.html  
[$ nano app.html  
$
```

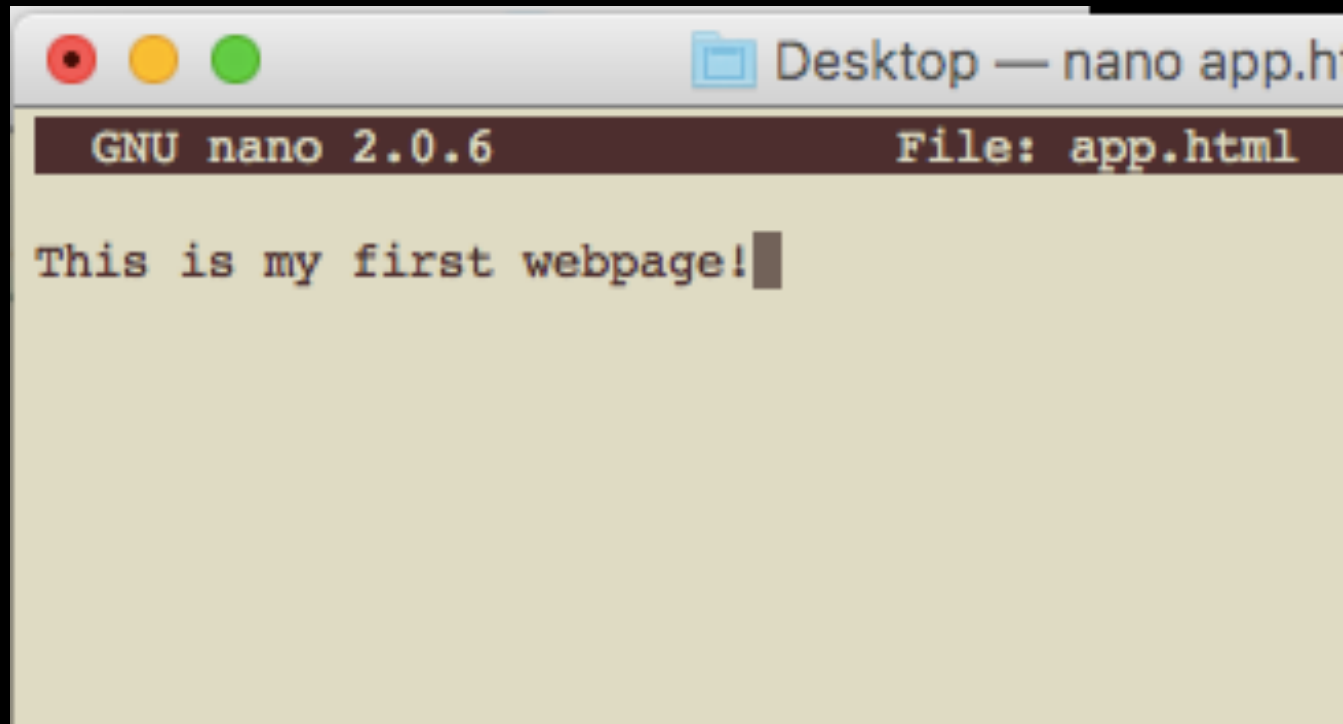
Finder



Goal 1: You will understand that programming is for you (and even

Edit the file

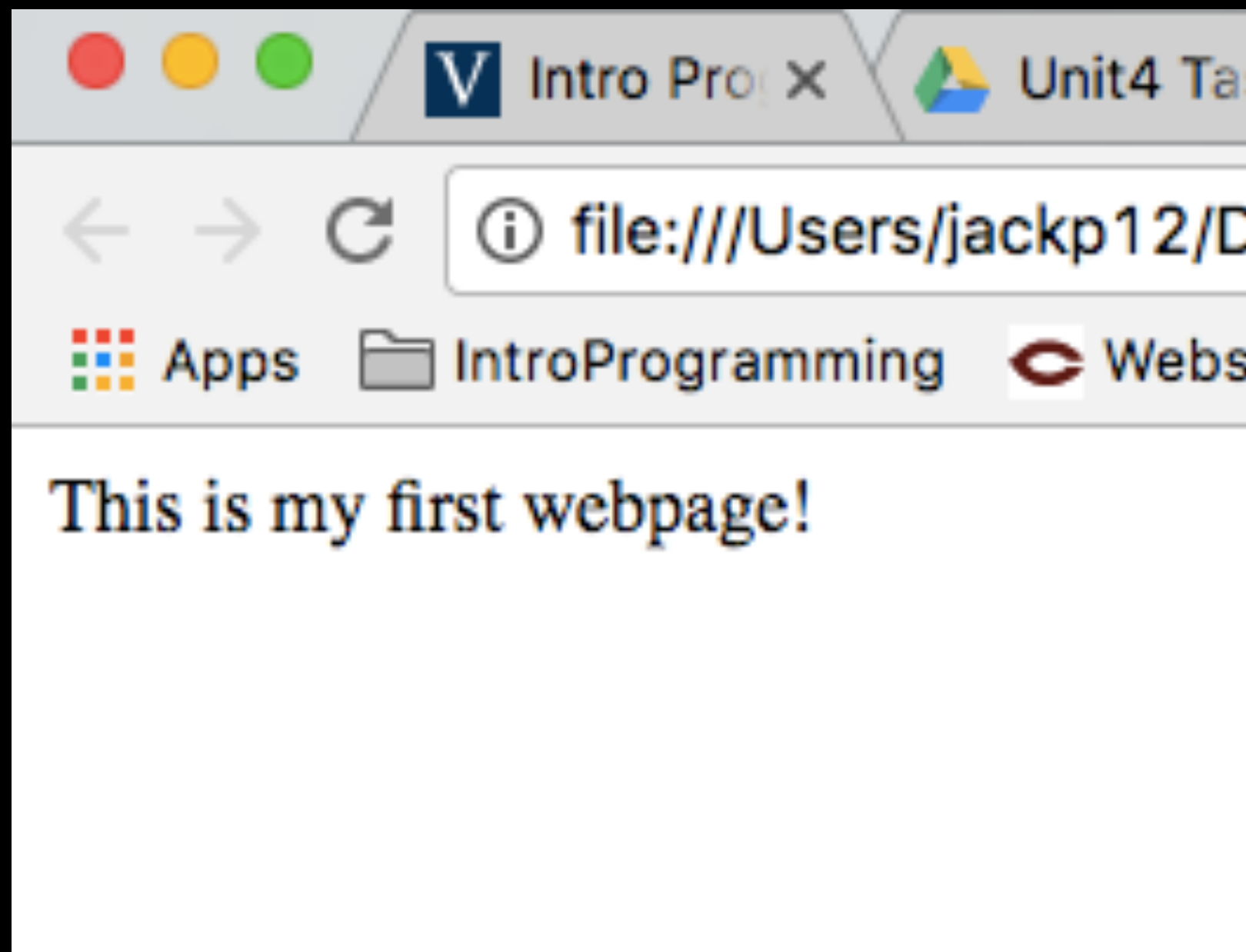
Command Line

A screenshot of a terminal window showing the GNU nano 2.0.6 text editor. The window title is "Desktop — nano app.h". The editor's status bar shows "GNU nano 2.0.6" and "File: app.html". The main text area contains the line "This is my first webpage!" followed by a cursor. The window has standard macOS-style window controls (red, yellow, green buttons) in the top-left corner.

1. Type in text.
2. Press Ctrl+X to exit
3. Type "Y" for yes
4. Press return to save

Goal 1: You will understand that programming is for you (and even for your dog).

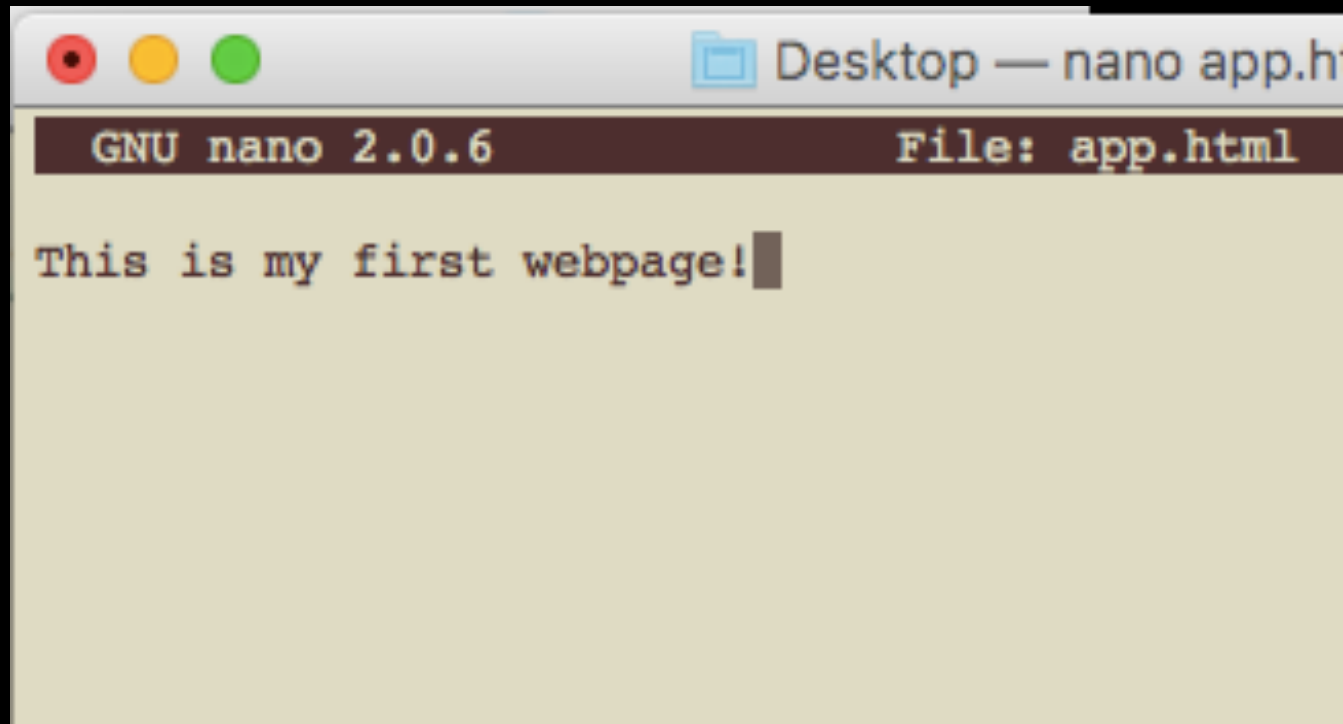
Drag the file from your desktop to Chrome.



Goal 1: You will understand that programming is for you (and even for your dog)

Change the text on the webpage

Command Line



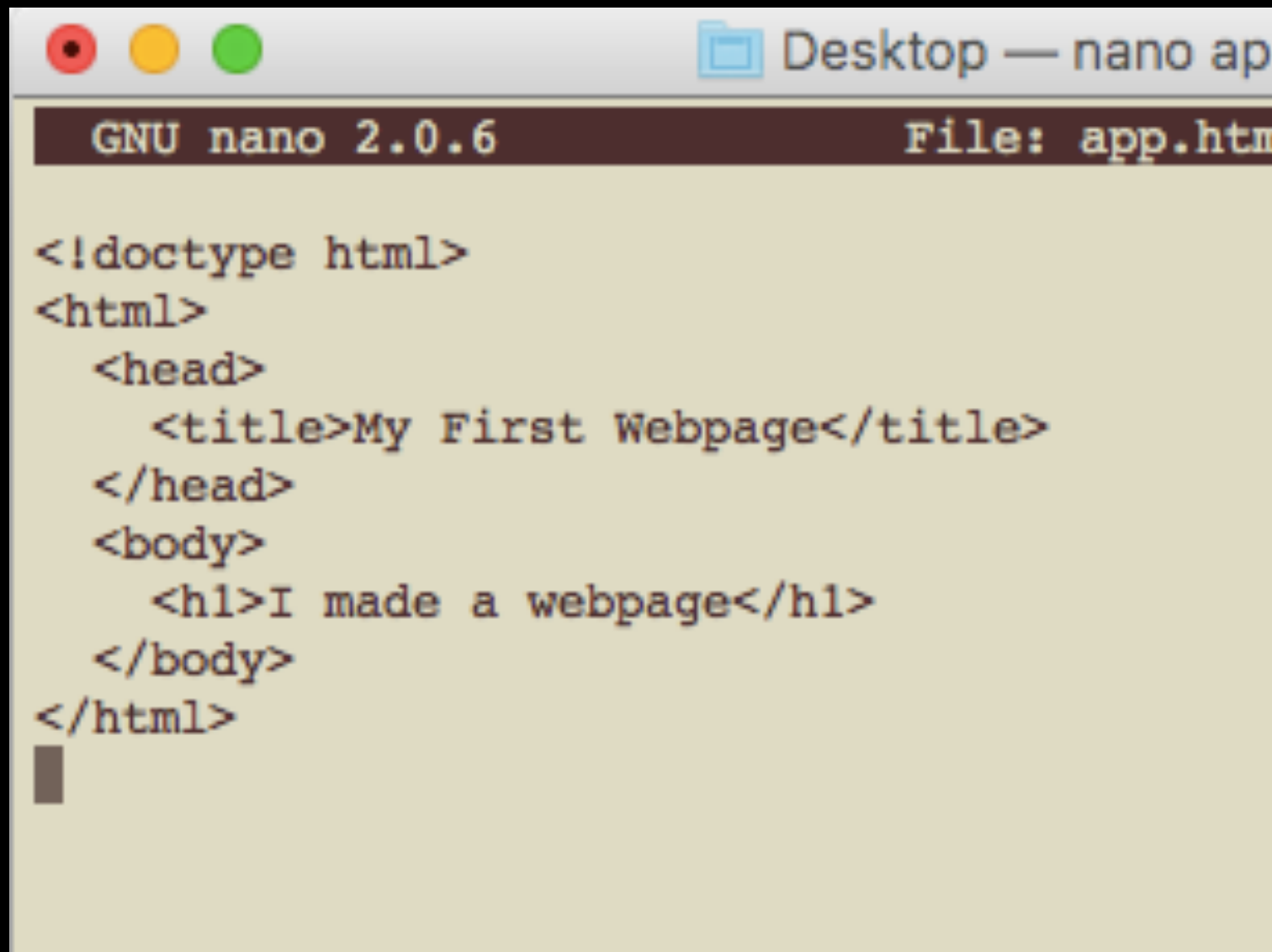
```
Desktop — nano app.html
GNU nano 2.0.6 File: app.html
This is my first webpage!
```

1. Type in different text.
2. Press Ctrl+X to exit
3. Type "Y" for yes
4. Press return to save
5. Reload the page in Chrome

Goal 1: You will understand that programming is for you (and even for your dog)

Make a proper webpage

Command Line



The screenshot shows a terminal window titled "Desktop — nano app". The window contains the GNU nano 2.0.6 text editor editing a file named "app.html". The code displayed is a basic HTML document structure:

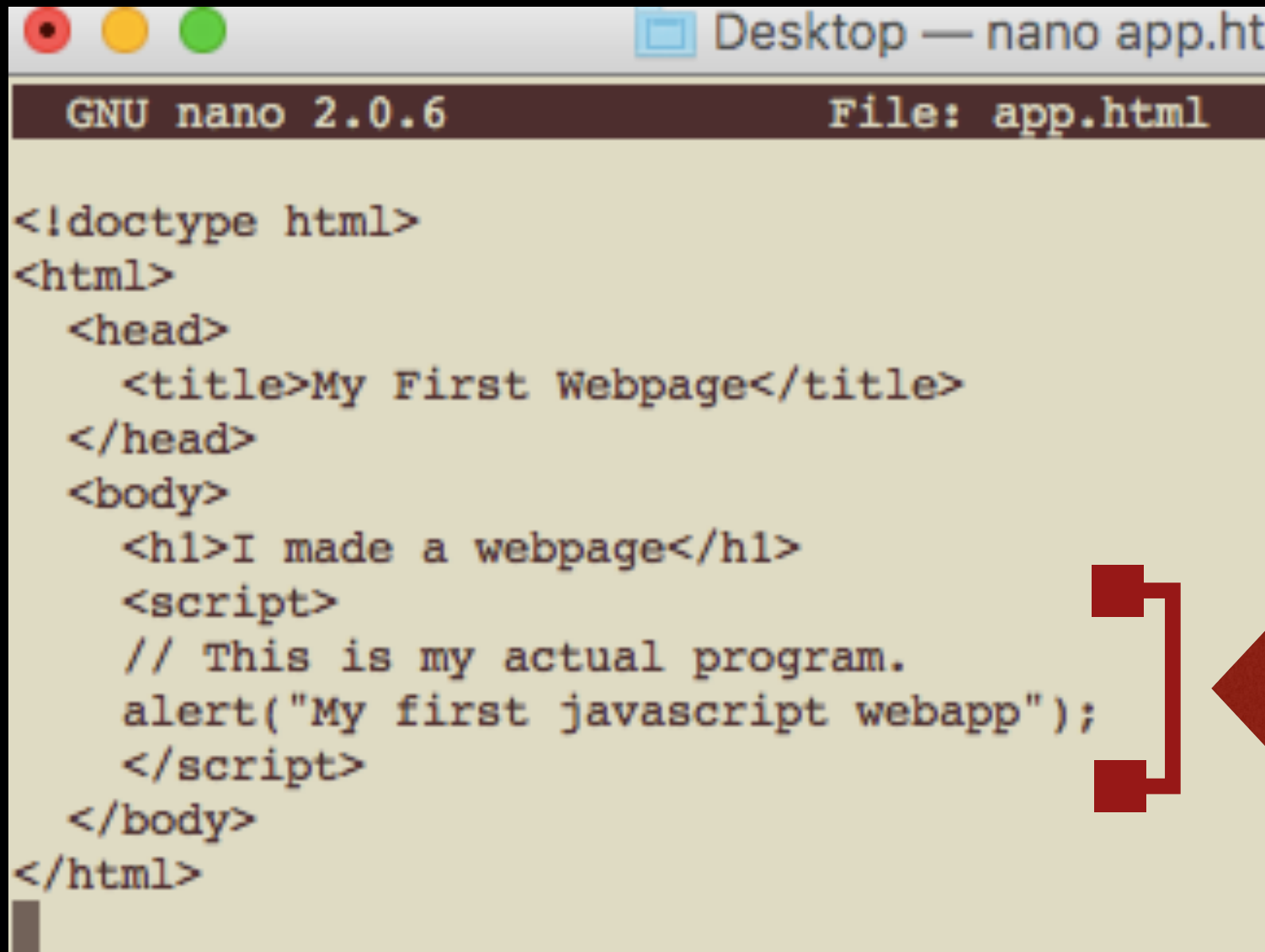
```
<!doctype html>
<html>
  <head>
    <title>My First Webpage</title>
  </head>
  <body>
    <h1>I made a webpage</h1>
  </body>
</html>
```

1. Type in different text.
2. Press Ctrl+X to exit
3. Type "Y" for yes
4. Press return to save
5. Reload the page in Chrome

Goal 1: You will understand that programming is for you (and even for your dog)

Make a proper webpage

Command Line



```
GNU nano 2.0.6      File: app.html

<!doctype html>
<html>
  <head>
    <title>My First Webpage</title>
  </head>
  <body>
    <h1>I made a webpage</h1>
    <script>
      // This is my actual program.
      alert("My first javascript webapp");
    </script>
  </body>
</html>
```

1. Type in different text.
2. Press Ctrl+X to exit
3. Type "Y" for yes
4. Press return to save
5. Reload the page in Chrome

Your code

Goal 2: You will know the expectations of this class.

1. No experience required.
2. You will learn to program.
3. Not a lot of homework assigned, but the successful students put in the time.
4. Everyone can get an A.
5. This class will be fun
6. No homework tonight.