TEMPLE UNIVERSITY

Digital Systems

Week7: HTML and CSS Basics

FOX MIS

ROADMAP

START

Week 1:
Introduction & Systems Analysis
- Course Description
- Systems Thinking

Week 1:
Introduction to Process Mapping
- Systems & Processes
- Swim Lane Diagrams

Assignments due::
- Course video intro
- Max Labs Pre-Flight
- Proctorio Practice Quiz

Week 2:
Data Modeling & ERD

- Max Labs 1A/1B- due
- Max Labs 2A/2B due

Week 2:

Exam #1

1/29 – 1/31: Exam Availability

Week 3:
Information Systems
- ERP & CRM
- Data Analytics & SCM

- Max Labs 3a/3b due
- Lean IT #1 due

Week 4:
Platforms & Digital Business Models
- API's
- Cloud

Week 4:
Cybersecurity & AI
- Protection Protocols
- Artificial Intelligence

- Lean IT #2 due
- Cyber Security due

Week 4 :

Exam #2

2/12-2/14 Exam Availability

Week 5:
JavaScript Unit #1 & 2
- Hello World,
- Variables
- Operator types
- Strings

SoloLearn Coding due

Week 6:
JavaScript Unit #3&4
- Logical Operators
- Conditional Types
- Intro to Loops
- While and Do
- Coding Challenges *3) due
- Proctorio Coding Practice due

Week 7:
HTML & CSS

- Coding Assignment -due

Week 7:

Exam #3

3/5 – 3/7: Exam Availability

FINISH

TIPS FROM MIS 2101 VIRTUAL HELPDESK

There are Many “Right” Answers with Nhi Nguyen

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HTML & CSS Basics

Week 7

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HTML is all about displaying content. CSS is all about making content look good. JavaScript adds the interactivity.

You need all three to create nifty looking sites.

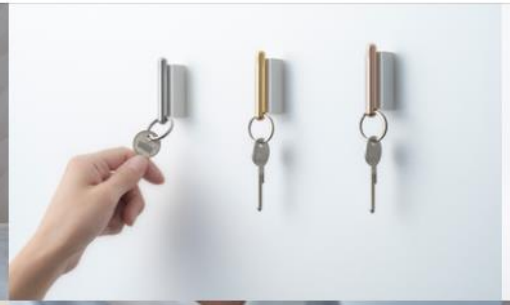
Home - Temple University Portal | Information Systems in Organiza | Inbox - tug32928@temple.edu - | Inbox - mariecpmartin@gmail.co | The Top 20 Most Beautiful Webs | PROJECTS || MIKIYA KOBAYASHI

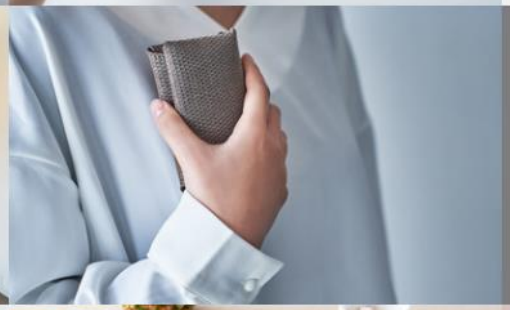
Not secure | mikiyakobayashi.com/projects

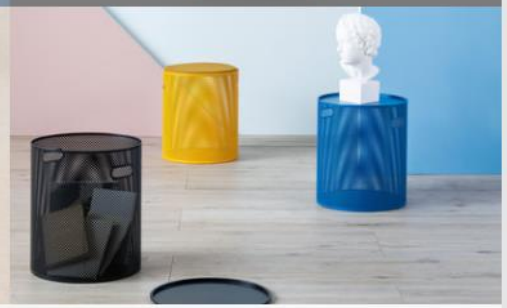
PROJECTS

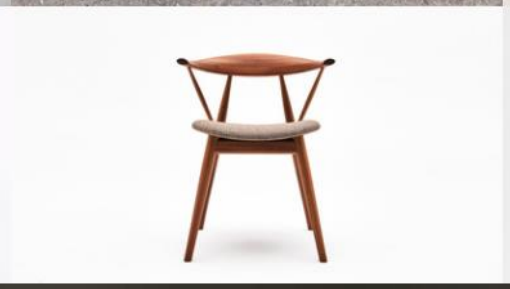
MIKIYA KOBAYASHI

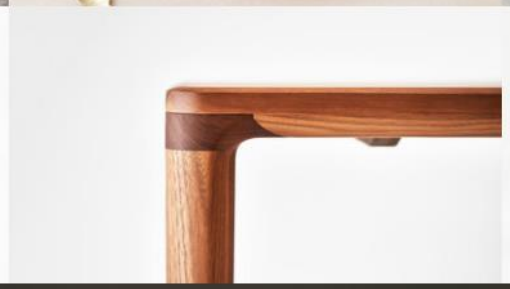
ALL









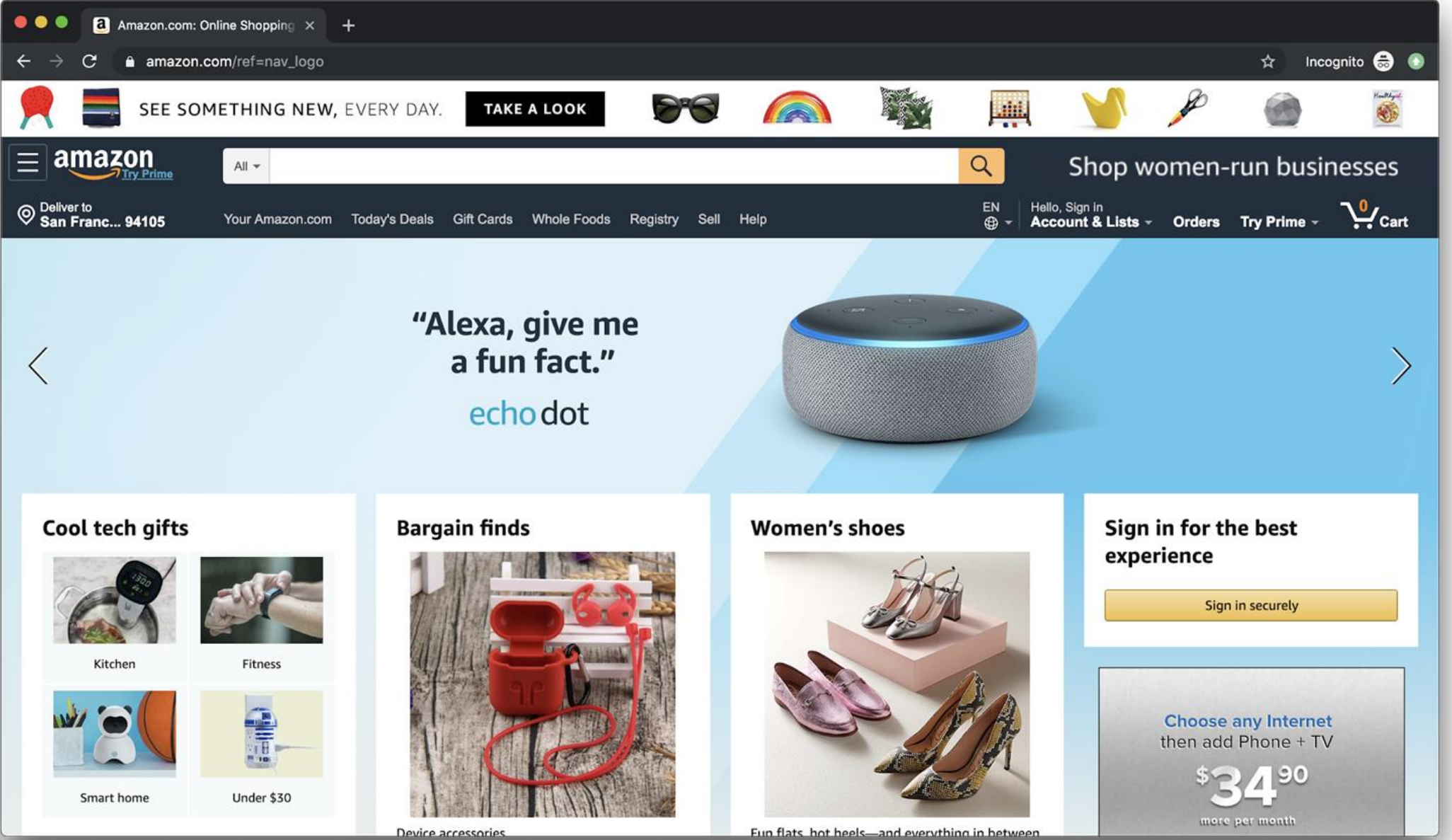


www.mikiyakobayashi.com/projects/furniture/nc4/

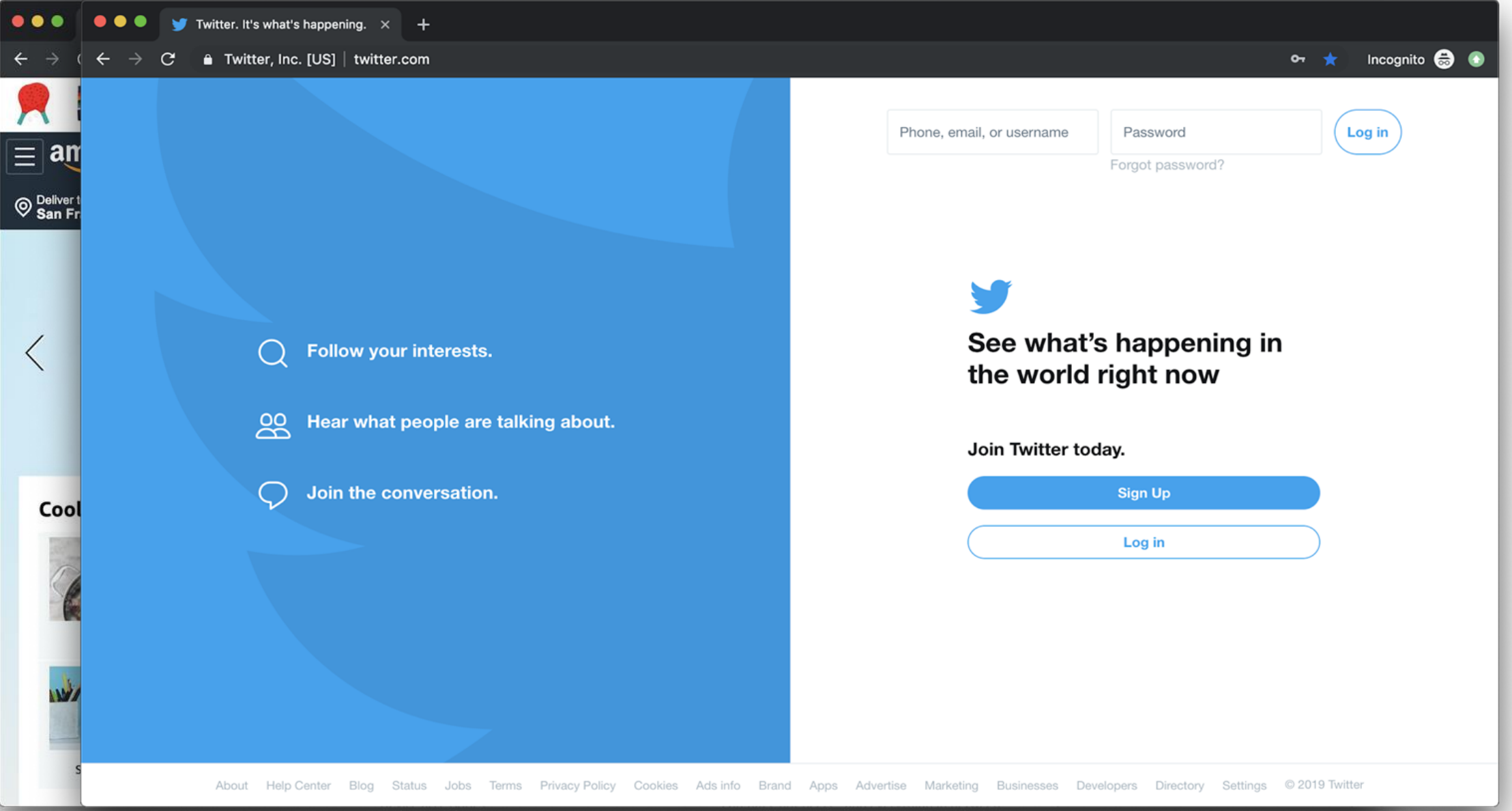
Type here to search

11:19 AM
11/11/2020

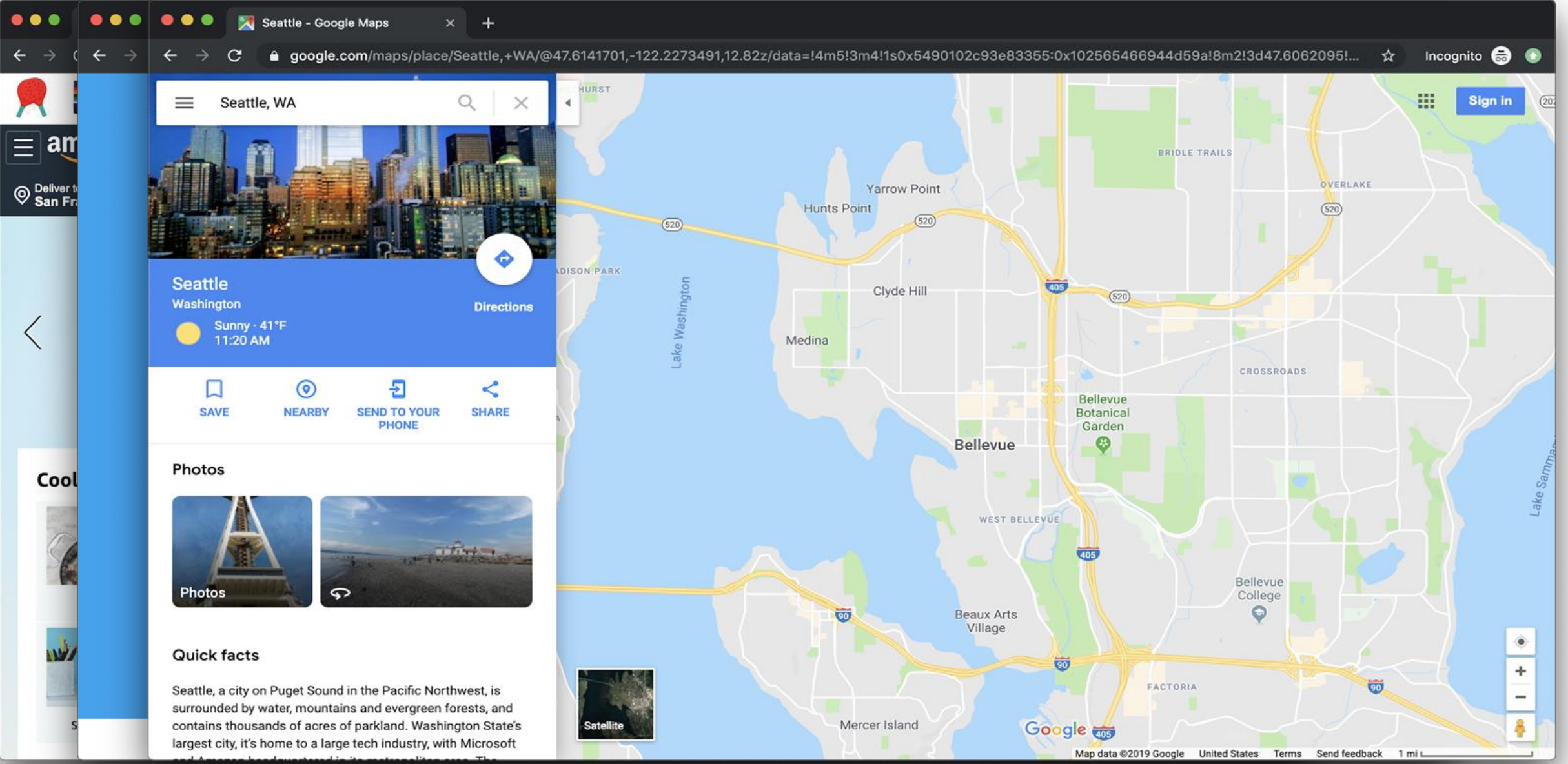
What you can’t do using just HTML and CSS is provide interactivity. That’s a problem. This means you can’t have...



Source: JavaScript Absolute Beginner's Guide by Kirupa Chinnathambi



Source: JavaScript Absolute Beginner's Guide by Kirupa Chinnathambi



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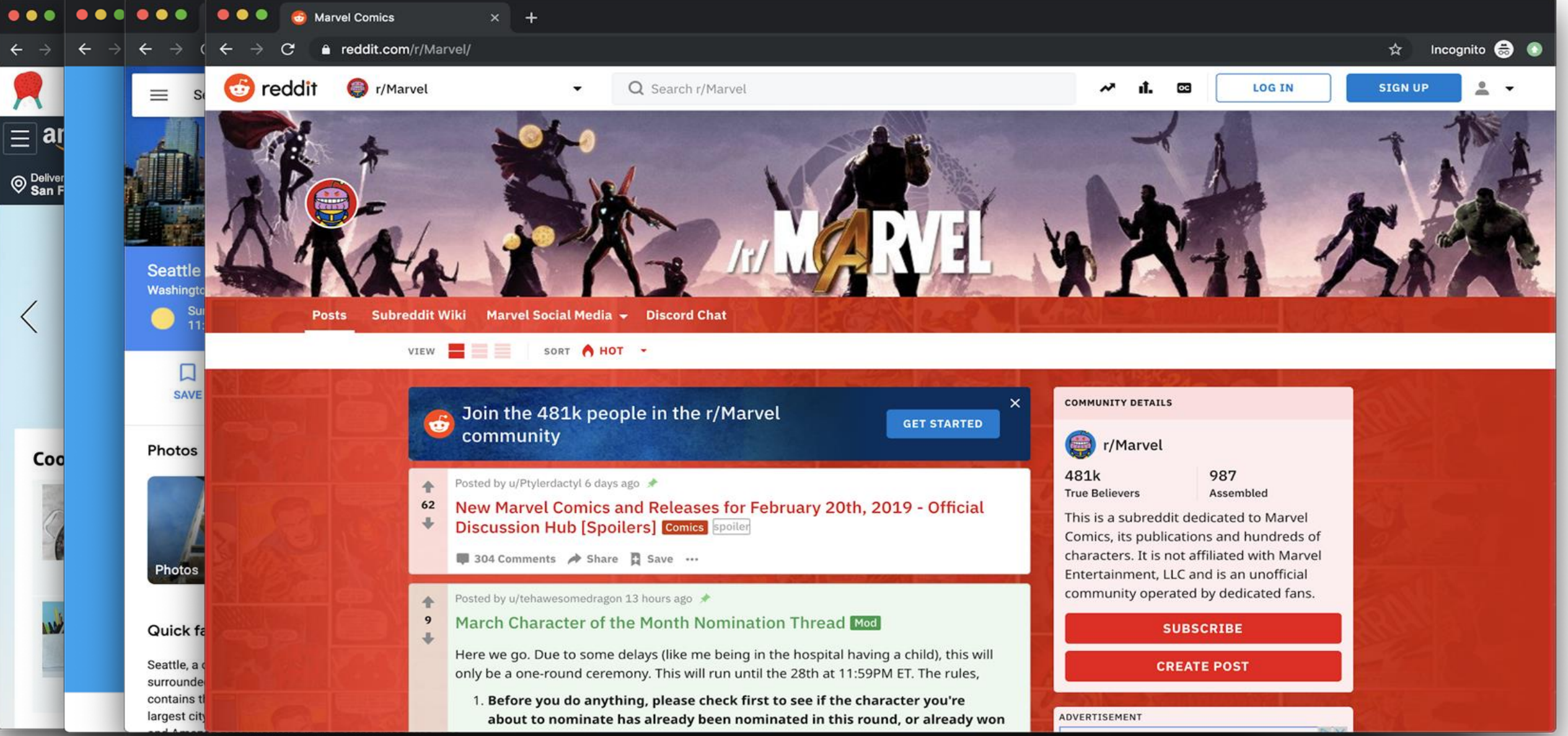


Source: JavaScript Absolute Beginner's Guide by Kirupa Chinnathambi

Without interactivity, so much of the internet just won't work. **This interactivity is provided by JavaScript.**

What exactly is a program?

Source: https://lh3.googleusercontent.com/ZcDbYsffPS_f2HRcyXUenTLZm9EcoVwHGlxnMhv7GAHsGcCE_7o3HcToGjynKLosbP2EQ=s114

Source: https://www.wvxu.org/sites/wvxu/files/styles/x_large/public/201802/Algorithm.jpeg

JavaScript (commonly shortened to just **JS**) is a programming language made up of English-looking words arranged in a particular way to tell your browser to do something.

All JavaScript and no HTML or CSS

HelloWorld2.html from previous coding challenge

```
26
27    var name = prompt("What is your name? ");
28
29    if (name != "") {
30
31        alert('Hello ' + name);
32
33    } else {
34
35        alert('Hello stranger');
36    }
37
```

All JavaScript and no HTML or CSS

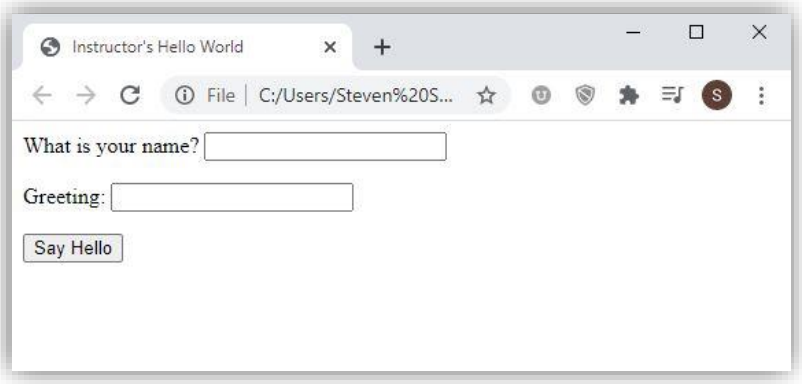
That is the program we worked on last week

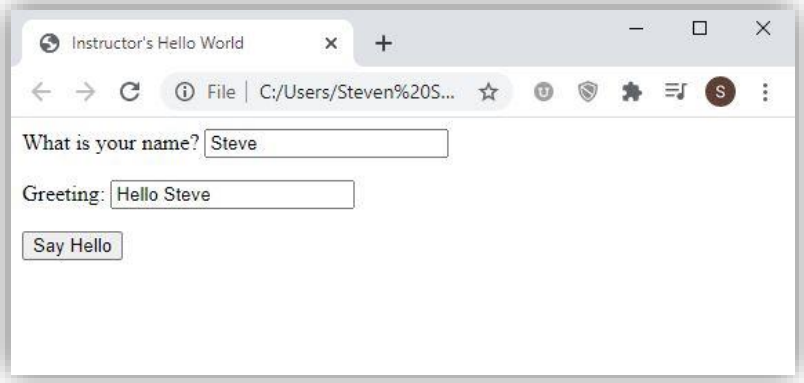
```
<!DOCTYPE html>
<html>
<body>
<script>

function numberOfGuessesMade() {

    var randomNumber = Math.floor(Math.random() * 100) + 1;
    var numberOfGuesses = 1;

    guess = parseInt(prompt('Guess a number between 1 and 100: '));

    while (guess !== randomNumber) {

        if (guess < randomNumber) {
            alert('Your guess was too low');
        }

        if (guess > randomNumber) {
            alert('Your guess was too high')
        }

        numberOfGuesses = numberOfGuesses + 1;
        guess = parseInt(prompt('Guess a number between 1 and 100: '));

    }

    return numberOfGuesses;

}

alert('It took ' + numberOfGuessesMade() + ' guesses to guess the random number.');

</script>
</body>
</html>
```

JavaScript is "Event Driven", that is, interactive. It waits for the user to do something and then executes code.

But how does your code get access to the information typed on the form?

JavaScript with a Little HTML



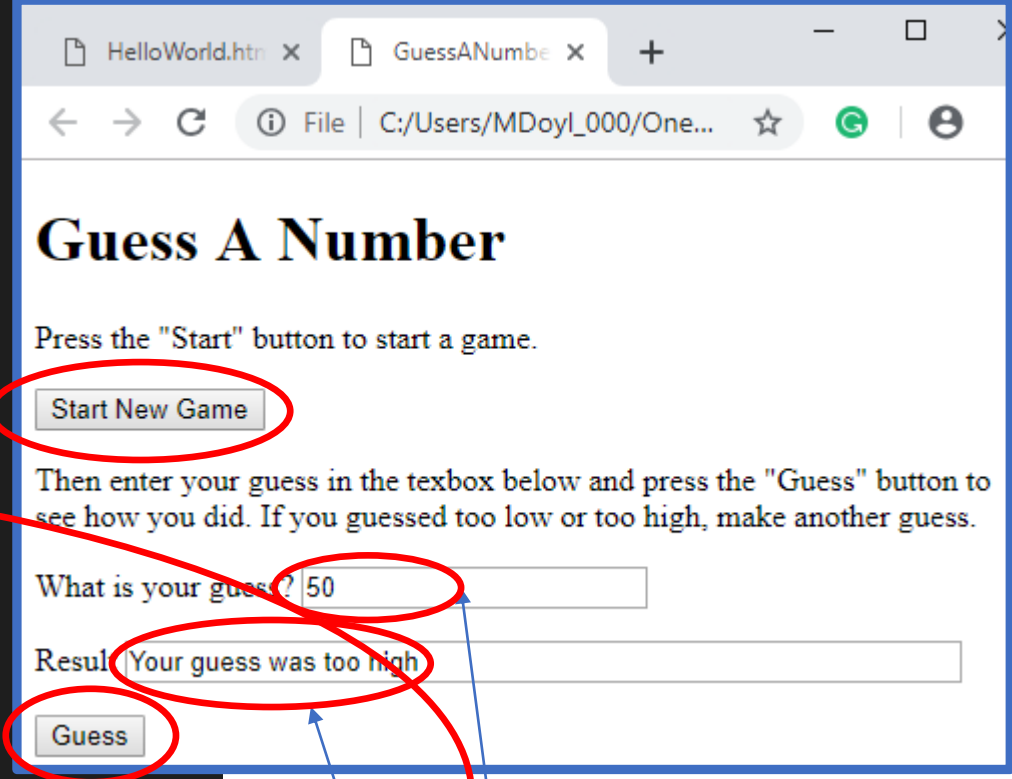


_Week 14 Discussion > HelloWorld - week 14 ppt example.html > html

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4
5      <title> Instructor's Hello World</title>
6  <script>
7
8  function sayHello() {
9
10 var name = document.getElementById("input").value;
11
12 if (name != ""){
13     document.getElementById("hellofield").value = 'Hello ' + name;
14     } else {
15     document.getElementById("hellofield").value = 'Hello stranger';
16     }
17 }
18
19 </script>
20 What is your name? <input type="text" id="input"> <P>
21 Greeting:          <input type="text" id="hellofield"> <P>
22                    <input type="button" id="goButton" VALUE = "Say Hello" onclick=sayHello() > <P>
23
24 </body>
25 </html>
```

mis2101workspace > _Week 14 Discussion > GuessANumber - week 14 ppt example.html > html

```
<!DOCTYPE html>
<html>
<head>
<style>
</style>
</head>
<body>
<script>

var randomNumber, numberOfGuesses;

function startGame() {
    randomNumber = randomNumber = Math.floor(Math.random() * 100) + 1;
    numberOfGuesses = 0;
    document.getElementById("guess").value = "";
    document.getElementById("guessResult").value = "";
}

function makeGuess() {

    var numberGuessed = document.getElementById("guess").value;
    numberGuessed = parseInt(numberGuessed);
    numberOfGuesses = numberOfGuesses + 1;

    if (numberGuessed < randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was too low';
    }
    if (numberGuessed > randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was too high';
    }
    if (numberGuessed == randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was correct.  You guessed it in ' + numberOfGuesses + ' guesses.';
    }
}
</script>
<h1>Guess A Number</h1>
<p>Press the "Start" button to start a game.</p>
<p><input type="button" id="startButton" VALUE = "Start New Game" onclick=startGame()></p>
<P>Then enter your guess in the texbox below and press the "Guess" button to see how you did.
If you guessed too low or too high, make another guess.</p>
<p>What is your guess? <input type="text"  id="guess"></p>
<p>Result <input type="text"  id="guessResult" size="55"></p>
<p><input type="button" id="guessButton" VALUE = "Guess" onclick=makeGuess()></p>
</body>
</html>
```

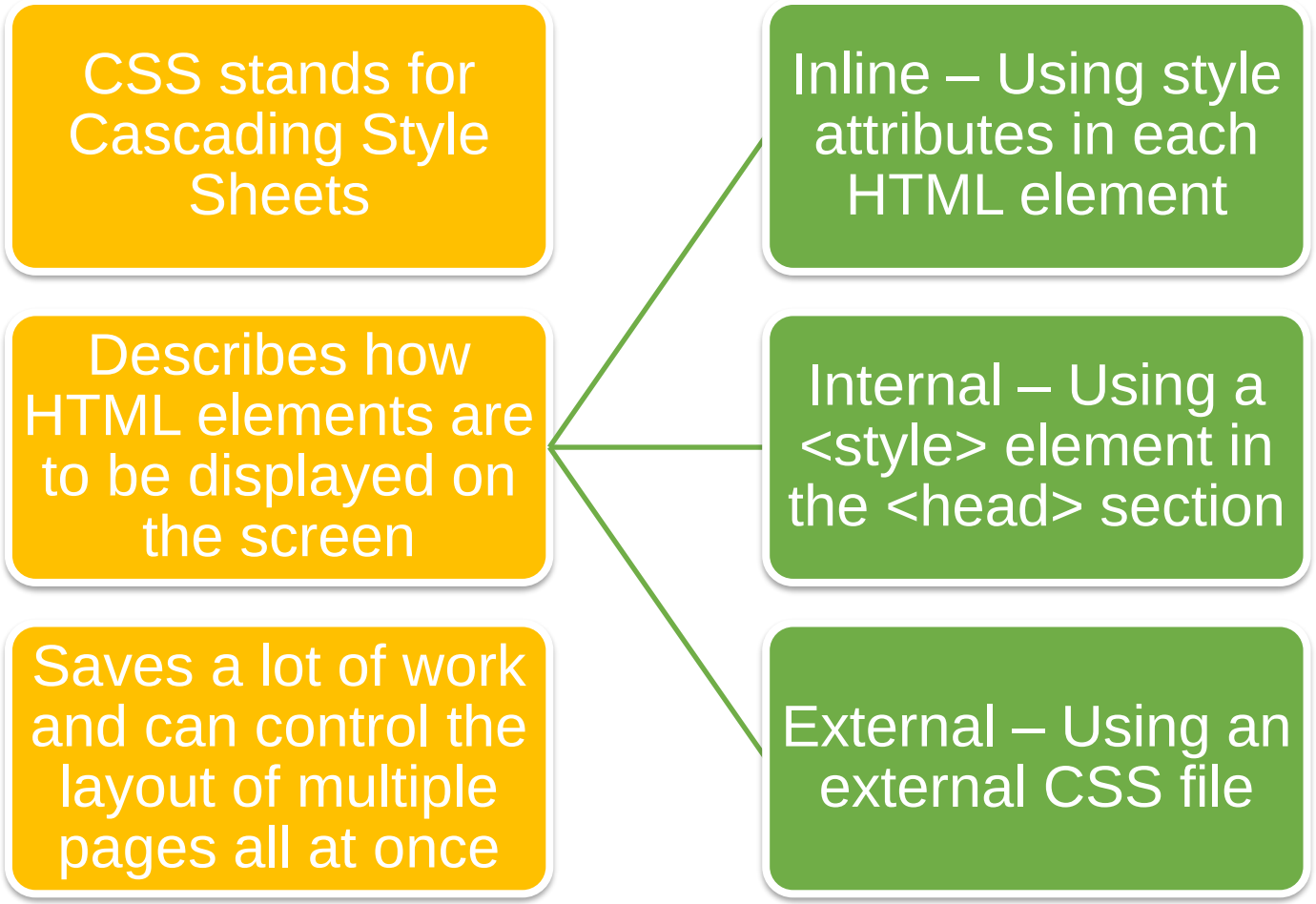


How do we get access to what was typed in?

How do we display the results?

What code gets executed when you press these buttons?

CSS is all about making your page look good



```html
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: blue;
  font-family: verdana;
  font-size: 300%;
}
p  {
  color: red;
  font-family: courier;
  font-size: 160%;
}
</style>
</head>
<body>
<script>

var randomNumber, numberOfGuesses;

function startGame() {
    randomNumber = randomNumber = Math.floor(Math.random() * 100) + 1;
    numberOfGuesses = 0;
    document.getElementById("guess").value = "";
    document.getElementById("guessResult").value = "";
}

function makeGuess() {

    var numberGuessed = document.getElementById("guess").value;
    numberGuessed = parseInt(numberGuessed);
    numberOfGuesses = numberOfGuesses + 1;

    if (numberGuessed < randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was too low';
    }
    if (numberGuessed > randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was too high';
    }
    if (numberGuessed == randomNumber) {
        document.getElementById("guessResult").value = 'Your guess was correct.  You guessed it in ' + numberOfGuesses + ' guesses.';
    }
}
</script>
<h1>Guess A Number</h1>
<p>Press the "Start" button to start a game.</p>
<p><input type="button" id="startButton" VALUE = "Start New Game" onclick=startGame()></p>
<P>Then enter your guess in the texbox below and press the "Guess" button to see how you did.
If you guessed too low or too high, make another guess.</p>
<p>What is your guess? <input type="text"  id="guess"></p>
<p>Result <input type="text"  id="guessResult" size="55"></p>
<p><input type="button" id="guessButton" VALUE = "Guess" onclick=makeGuess()></p>
</body>
</html>
```

Time for “Challenges”!

Challenges – (week 14 coding files)

- **Unit 1 – Profits (ICA #9)**
- **Unit 1 – TotalPurchases**
- **Unit 2 – SalesTax**
- **Unit 2 – MaleAndFemalePercentages**
- **Unit 3 – RomanNumerals**
- **Unit 3 – MagicDates**
- **Unit 4 – PenniesForPay**

Diamond Peer Teacher
Jack Granieri

Profits HTML Coding Walkthrough

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Profits

Open up the profits program (week 14 coding files). Add your function / HTML. If time permits try adding a style tag to define the fonts, color for the header and paragraph tags.

the code: Profits

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4  <script>
5
6  function calculate_profits(){
7  var totalSales = document.getElementById("sales").value;
8  var profits = totalSales * .23;
9  document.getElementById("profits").value = profits;
10 }
11
12 </script>
13 <h1> Welcome to the Profits Program </h1>
14 <p>What are your projected total sales? <input type="text" id="sales"></p>
15 <p>Profits are <input type="text" id="profits"></p>
16 <p><input type="button" id="calculate" VALUE="CALCULATE" onclick=calculate_profits()></p>
17 </body>
18 </html>
```

These make the tags. You should be accustomed to it by now.

Our function which gets the sales from the text box and then calculates the profits. Then it assigns the textbox for profit with the value of profits we calculated.

Notice how this is different than we did in previous challenges. Here we use header <h1> and paragraph <p> tags to display the text. The input tags define what type of the value is present on the page. Id refers to the specific element on the page.

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ICA9 : HTML & CSS (last one!)

Profits

4-5 students per break out room for 30 minutes

Diamond Peer Teacher
Patrick Jurgelewicz

Total Purchases HTML Coding Walkthrough

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Total Purchases

Open up the TotalPurchases challenge, instead of using prompts try using textboxes to get the input and display the data using textboxes after the user clicks the button.

The code: TotalPurchases

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

function total_purchases(){
var item1Price = document.getElementById("item1").value;
item1Price = parseFloat(item1Price);
var item2Price = document.getElementById("item2").value;
item2Price = parseFloat(item2Price);
var item3Price = document.getElementById("item3").value;
item3Price = parseFloat(item3Price);
var item4Price = document.getElementById("item4").value;
item4Price = parseFloat(item4Price);
var item5Price = document.getElementById("item5").value;
item5Price = parseFloat(item5Price);

var subTotal = item1Price + item2Price + item3Price + item4Price + item5Price;
document.getElementById("subtotal").value = subTotal;
var salesTax = subTotal * .07;
document.getElementById("salestax").value = salesTax;
var total = subTotal + salesTax;
document.getElementById("total").value = total;

}
</script>

<h1> Welcome to the Profits Program </h1>
<p>What is the price of item 1? <input type="text" id="item1"></p>
<p>What is the price of item 2? <input type="text" id="item2"></p>
<p>What is the price of item 3? <input type="text" id="item3"></p>
<p>What is the price of item 4? <input type="text" id="item4"></p>
<p>What is the price of item 5? <input type="text" id="item5"></p>
<p>-------------------------------------------------------------------------------</p>
<p>The subtotal of the order is $ <input type="text" id="subtotal"></p>
<p>The sales tax (7%) is $ <input type="text" id="salestax"></p>
<p>The total of the order is $ <input type="text" id="total"></p>
<p><input type="button" id="calculate" VALUE="CALCULATE" onclick=total_purchases()></p>
</body>
</html>
</body>
</html>
```

This is where our function goes, here we get the data from the five text boxes with the prices, store them in variables, convert them to decimals.
Calculate subtotal by adding them up, assign the element for subtotal with the value of subtotal.
Calculate the sales tax using subtotal, assign the element for sales tax with the value of sales tax.
Calculate total with the addition of sales tax and subtotal, assign the element for total with the value of variable total.

After script tag, make header and paragraph tags for fonts on the webpage.
Make textboxes for getting prices of items
Then display the subtotal, sales tax, total in a textbox
Make a button to initiate the function.

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Diamond Peer Teacher
Sean Boyer

Sales Tax HTML Coding Walkthrough

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Sales tax

Open up the sales tax program and try to add the textboxes and buttons to it. Again, get the amount using textboxes and display the total with salestax.

the code: SalesTax

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

function orderTotal() {
var subtotal = document.getElementById("amount").value;
subtotal = parseFloat(subtotal);
var stateSalesTax = subtotal * .05;
var countySalesTax = subtotal * .025;
var total = subtotal + stateSalesTax + countySalesTax;
document.getElementById("total").value = total;
}

</script>
<h1> Welcome to the Order Total Program </h1>
<p>What is the amount of the purchase? <input type="text" id="amount"></p>
<p>The total for the order including state and county sales tax is $ <input type="text" id="total"></p>
<p><input type="button" id="calculate" VALUE="CALCULATE" onclick=orderTotal()></p>

</body>
</html>
```

This function gets the subtotal from the textbox, parses it, then calculates the state sales tax, county sales tax, and total. It assigns the element for total with the value of variable total.

We create the header <h1> and paragraph <p> tags with some texts to make the program look more presentable. We'll also make a button to call the function to do the calculation and display the output.

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Diamond Peer Teacher
Jack Granieri

Male And Female Percentages HTML Coding Walkthrough

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Female and Male Percentages

Open up the MaleAndFemalePercentages program which asks user the number of females and males present, after that display the total number of people, percentage of females and percentage of males.

the code: female and male percentages

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

function calculatePercentage(){
var females = document.getElementById("females").value;
females = parseInt(females);
var males = document.getElementById("males").value;
males = parseInt(males);
var total = females + males;
document.getElementById("total").value = total;
var female_percentage =  females/total * 100;
document.getElementById("female_percent").value = female_percentage;
var male_percentage = males/total * 100;
document.getElementById("male_percent").value = male_percentage;
}

</script>

<h1> Welcome to the Percentages Program </h1>
<p>How many females are in this class? <input type="text" id="females"></p>
<p>How many males are in this class? <input type="text" id="males"></p>
<p>Total is <input type="text" id="total"></p>
<p>Female Percentage is <input type="text" id="female_percent"> %</p>
<p>Male Percentage is <input type="text" id="male_percent"> %</p>
<p><input type="button" id="calculate" VALUE="CALCULATE" onclick=calculatePercentage()></p>
</body>
</html>
```

This function gets the count of females and males from the textbox, parses it, then calculates the total, percentage of females, and percentage of males. It assigns the element for total with the value of variable total. Similarly for female and male percentage.

Now in the body, we make textboxes to ask user number of females and males. Then we also make textboxes to display the data back to the user. The button here will invoke the function which will be responsible for all the calculations.

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Exam 3: Opens Friday (3/5) at 6 PM
Close Sunday (3/7) at Midnight

Final Exam Review