Attendance Please login to Canvas and "Check-In"

Attendance is not a part of your grade for this class. The university has mandated that we take attendance for all classes, face-to-face, online and hybrid, to assist in contact tracing should an outbreak of Covid-19 occur.





Digital Systems

Week7: HTML and CSS Basics



ROADMAP



Week 1:

Introduction & Systems Analysis

- Course Description
- · Systems Thinking

Week 1:

Introduction to Process Mapping

- Systems & Processes
 Swim Lone Diagrams
- Swim Lane Diagrams
- Max Labs 0- due
- Practice test due

Week 2:

Digital Product Management & ERD

Week 2:

Introduction to Data Modeling

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

Week 2:

Exam #1

10/30 – 11/1: Exam Availability

Week 4:

Exam #2

11/13-11/5 Exam Availability

Week 4:

Cybersecurity & AI

- Protection Protocols
- · Artificial Intelligence
- Cybersecurity/AI assignment due
- Max Labs 3a/3b due

Week 4:

Platforms & Digital Business Models

- API's
- Cloud

Week 3:

Information Systems

- ERP & CRM
- · Data Analytics & SCM
- Lean IT #1 due

Week 5:

JavaScript Unit #1 & 2

- · Hello World, Variables
- Input and Output
- Operator types
- Strings

Watch Lynda.com video – due Code Academy due

Week 6:

JavaScript Unit #3&4

- Logical Operators
- Conditional Types
- Intro to Loops
- While and DoWriting the code
- Practice Coding Exam

Week 7:

HTML & CSS

Coding Assignment -dueLean IT #2 due

Week 7:

Exam #3

12/8 – 12/ 9: Exam Availability



TIPS FROM MIS 2101 VIRTUAL HELPDESK

There are Many "Right" Answers with Nhi Nguyen





HTML & CSS Basics

Week 7

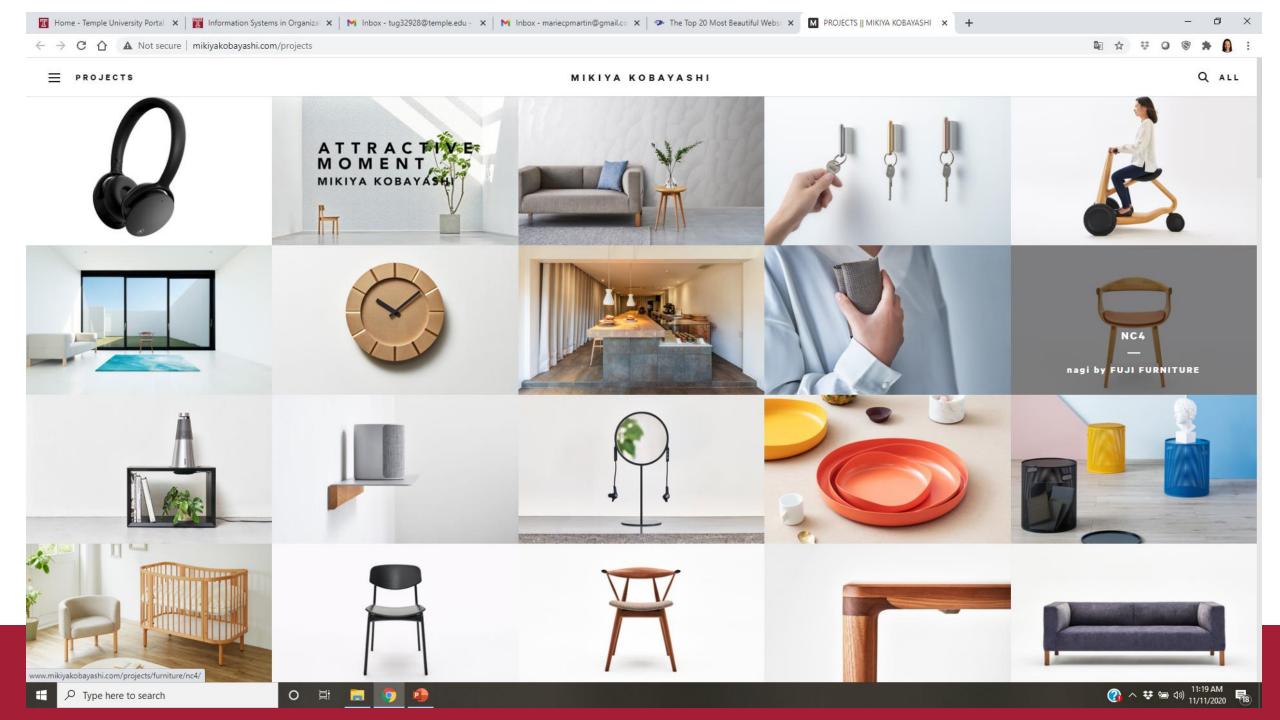


HTML is all about displaying content. CSS is all about making content look good. JavaScript adds the interactivity.

You need all three to create nifty looking sites.



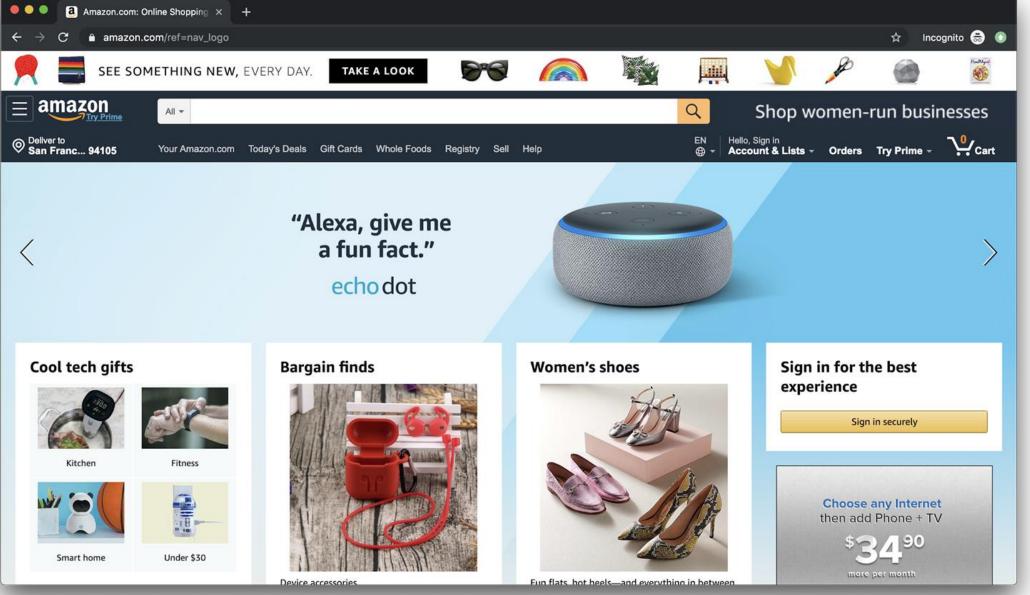




What you can't do using just HTML and CSS is provide interactivity. That's a problem. This means you can't have...

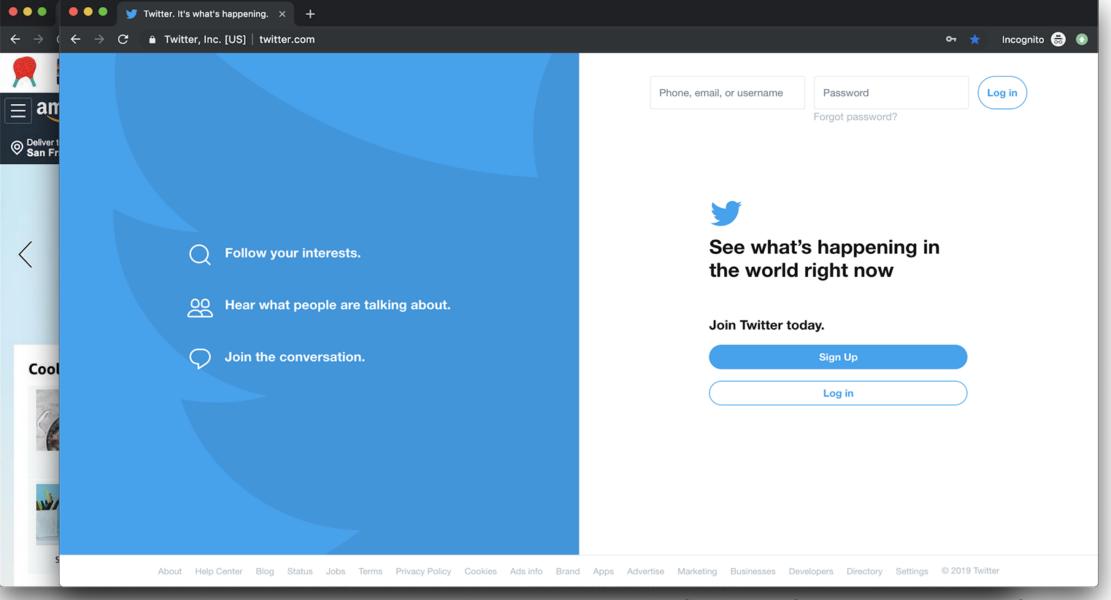






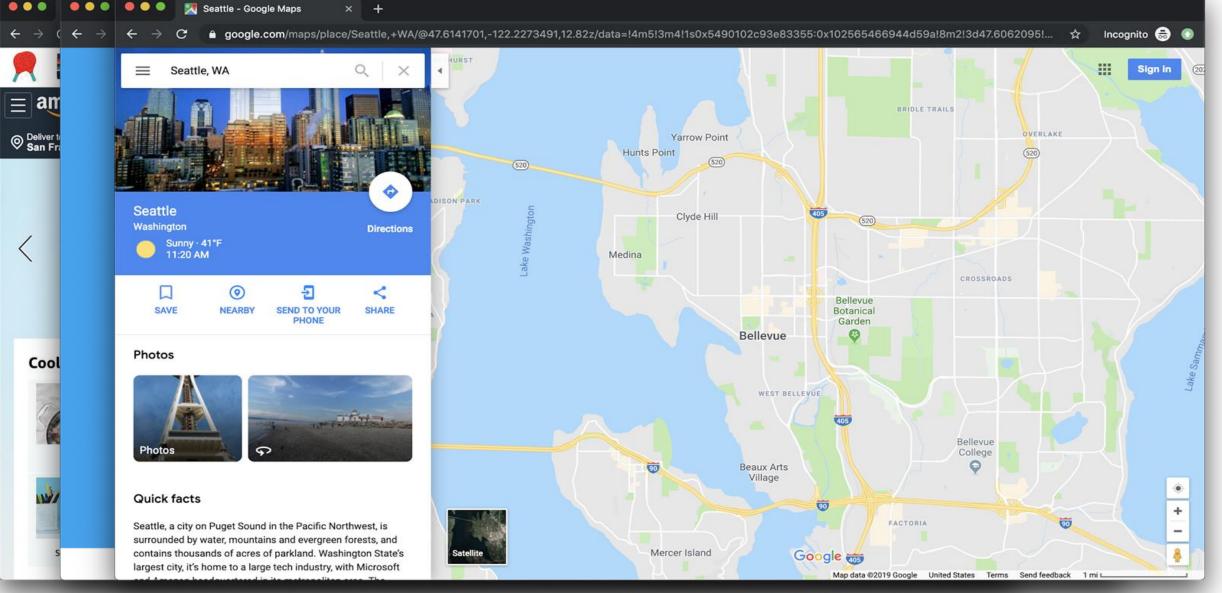






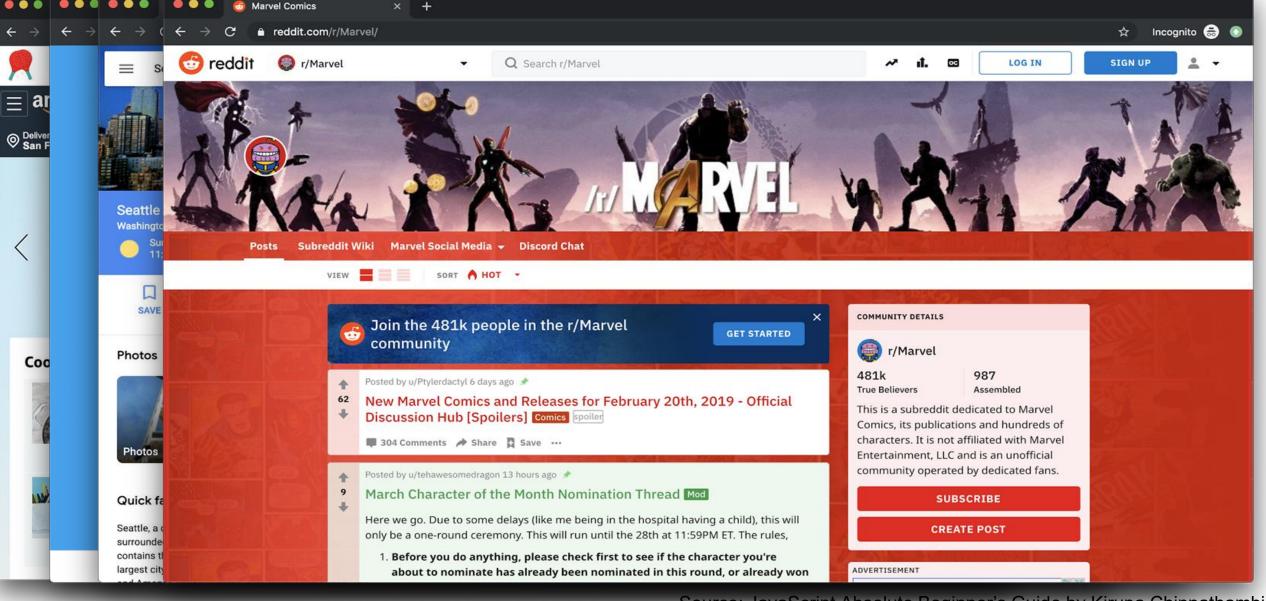
















Without interactivity, so much of the internet just won't work. This interactivity is provided by JavaScript.





What exactly is a program?

```
y),+function(a){"use strict";function b(b){return this.each(function(){
 menu)"),d=b.data("target");if(d||(d=b.attr("href"),d=d&&d.replace(/.*(?=#[^\s]*$)/,"")),
st a"),f=a.Event("hide.bs.tab",{relatedTarget:b[0]}),g=a.Event("show.bs.tab",{relatedTarget:e[0]
faultPrevented()){var h=a(d);this.activate(b.closest("li"),c),this.activate(h,h.parent(),functio
 rigger({type:"shown.bs.tab",relatedTarget:e[0]})})}}},c.prototype.activate=function(b,d,e){func
 > .active").removeClass("active").end().find('[data-toggle="tab"]').attr("aria-expanded",!1),
 ia-expanded",!0),h?(b[0].offsetWidth,b.addClass("in")):b.removeClass("fade"),b.parent(".dropdou
 ().find('[data-toggle="tab"]').attr("aria-expanded",!0),e&&e()}var g=d.find(">.active"),h=e&&
 ")||!!d.find("> .fade").length);g.length&&h?g.one("bsTransitionEnd",f).emulateTransitionEnd
;var d=a.fn.tab;a.fn.tab=b,a.fn.tab.Constructor=c,a.fn.tab.noConflict=function(){return a.fn.t
 show")};a(document).on("click.bs.tab.data-api",'[data-toggle="tab"]',e).on("click.bs.tab.data
se strict";function b(b){return this.each(function(){var d=a(this),e=d.data("bs.affix"),f="ob"
typeof b&&e[b]()})}var c=function(b,d){this.options=a.extend({},c.DEFAULTS,d),this.$target=a
 ,a.proxy(this.checkPosition,this)).on("click.bs.affix.data-api",a.proxy(this.checkPositionWi
null,this.pinnedOffset=null,this.checkPosition()};c.VERSION="3.3.7",c.RESET="affix affix-top
State=function(a,b,c,d){var e=this.$target.scrollTop(),f=this.$element.offset(),g=this.$targ
bottom"==this.affixed)return null!=c?!(e+this.unpin<=f.top)&&"bottom":!(e+g<=a-d)&&"bottom"
!=c&&e<=c?"top":null!=d&&i+j>=a-d&&"bottom"},c.prototype.getPinnedOffset=function(){if(this
.RESET).addClass("affix");var a=this.$target.scrollTop(),b=this.$element.offset();return
WithEventLoop=function(){setTimeout(a.proxy(this.checkPosition,this) 1)}
```

Source: https://lh3.googlesserreentamps://mww.aca.hxxsffbrg/sfaetReyxu/anet/agnet/send/aca.hxsffbrg/sfaetReyxu/anet/agnet/send/aca.hxsffbrg/sfaetReyxu/anet/agnet/send/aca.hxsffbrg/sfaetReyxu/anet/send/aca.hxsfaetReyxu/anet/send/aca.hxsfaetReyxu/





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

Open HelloWorld2.html from the files you worked on

```
26
     var name = prompt("What is your name? ");
27
28
   if (name != "") {
30
         alert('Hello ' + name);
31
32

    } else {
34
         alert('Hello stranger');
35
36
37
```





All JavaScript and no HTML or CSS

Open GuessANumber.html from the files you worked on

```
<!DOCTYPE html>
(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) {</pre>
            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>
```





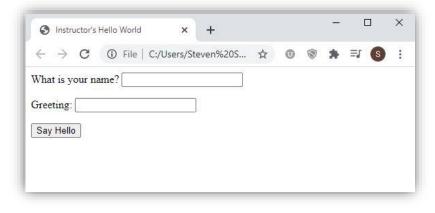
JavaScript is "Event Driven", that is, interactive. It waits for the user to do something and then executes code.

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





JavaScript with a Little HTML

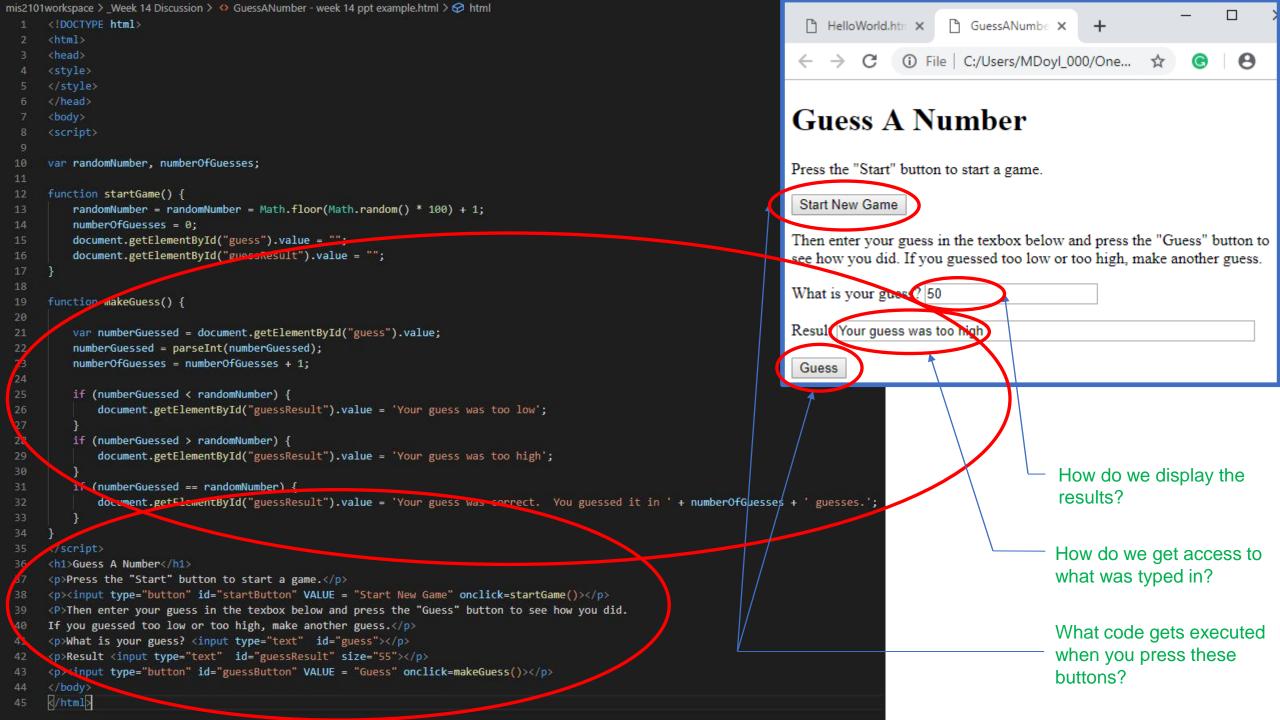




```
Week 14 Discussion > ♦ HelloWorld - week 14 ppt example.html > ♦ html
   <!DOCTYPE html>
 2 Vkhtm1
        <title> Instructor's Hello World</title>
 6 ∨ ⟨script⟩
 8 \vee function sayHello() {
10 var name = document.getElementById("input").value;
12 v if (name != "")
        document.getElementById("hellofield").value = 'Hello ' + name;
        document.getElementById("hellofield").value = 'Hello stranger';
   </script
    What is your name? <input type= text" id="input"> <P>
                     <input cype="text" id="hellofield"> <P>
                    C/Duu
```







CSS is all about making your page look good

CSS stands for Cascading Style Sheets

Describes how HTML elements are to be displayed on the screen

Saves a lot of work and can control the layout of multiple pages all at once Inline – Using style attributes in each HTML element

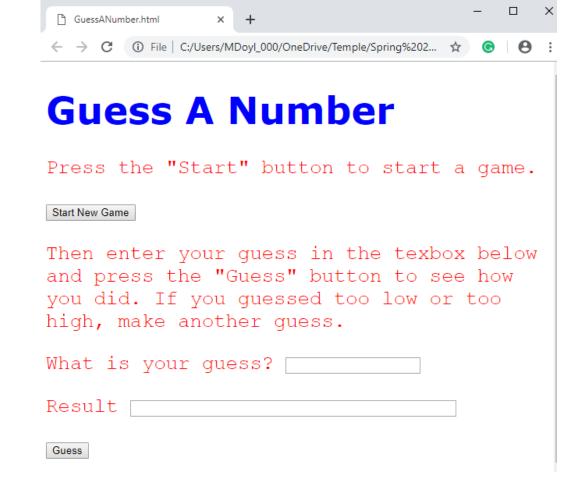
Internal – Using a <style> element in the <head> section

External – Using an external CSS file





```
color: | blue;
      font-family: verdana;
      font-size: 300%;
      color: | red;
      font-family: courier
      font-size: 160%;
20 var randomNumber, numberOfGuesses;
22 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("guess@esul+") value = 'Your guess was correct. You guessed it in ' + numberOfGuesses + ' guesses.';
    <h1>Guess A Number</h1>
    Press the "Start" button to start a game.
     <input type="button" id="startButton" VALUE = "Start New Game" onclick=startGame()>
49 <P>Then enter your guess in the texbox below and press the "Guess" button to see how you did.
50 If you guessed too low or too high, make another guess.
     What is your guess? <input type="text" id="guess" >
     Result <input type="text" id="guessResult" size="55">
53 finput type="button" id="guessButton" VALUE = "Guess" onclick=makeGuess()>
54 </body>
```





<!DOCTYPE html>



Time for "Challenges"!





Challenges – Start with your old programs and add a web interface

- Unit 1 Profits
- 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



Profits

Open up the profits program we did earlier and try to add the textboxes and buttons to it. Once you are done with it, try adding a style tag to define the fonts, color for the header and paragraph tags.





the code: Profits

calculated.

```
<!DOCTYPE html>
                                                              These make the tags. You should be
     <html>
     <body>
                                                              accustomed to it by now.
     <script>
     function calculate_profits(){
     var totalSales = document.getElementById("sales").value;
     var profits = totalSales * .23;
     document.getElementById("profits").value = profits;
10
     <h1> Welcome to the Profits Program </h1>
13
     What are your projected total sales? <input type="text" id="sales">
14
     Profits are <input type="text" id="profits">
15
     <input type="button" id="calculate" VALUE="CALCULATE" onclick=calculate_profits()>
     </html>
```

Notice how this is different than we did in previous challenges. Here we use header <h1> and paragraph 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.

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



ICA10: HTML & CSS Basics Part 1

Profits





Diamond Peer Teacher Patrick Jurgelewicz

Total Purchases HTML Coding Walkthrough



Total Purchases

Open up the TotalPurchases challenge that we did earlier, 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;
9
      item2Price = parseFloat(item2Price);
10
      var item3Price = document.getElementById("item3").value;
11
      item3Price = parseFloat(item3Price);
12
      var item4Price = document.getElementById("item4").value;
13
      item4Price = parseFloat(item4Price);
14
15
      var item5Price = document.getElementById("item5").value;
      item5Price = parseFloat(item5Price);
16
17
      var subTotal = item1Price + item2Price + item3Price + item4Price + item5Price;
18
      document.getElementById("subtotal").value = subTotal;
19
      var salesTax = subTotal * .07;
20
      document.getElementById("salestax").value = salesTax;
21
      var total = subTotal + salesTax;
22
      document.getElementById("total").value = total;
23
24
25
      </script>
26
27
      <h1> Welcome to the Profits Program </h1>
28
      What is the price of item 1? <input type="text" id="item1">
29
      What is the price of item 2? <input type="text" id="item2">
30
      What is the price of item 3? <input type="text" id="item3">
31
      What is the price of item 4? <input type="text" id="item4">
32
33
```

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.

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

</pod>

34

35

36

37

38

39

40

41

42

</html>

</body>

</html>

After script tag, make header and paragraph tags for fonts or he 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.



Diamond Peer Teacher Sean Boyer

Sales Tax HTML Coding Walkthrough



Sales tax

Open up the sales tax program we did earlier 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>
                                                                  This function gets the subtotal from
<body>
<script>
                                                                  the textbox, parses it, then
function orderTotal() {
                                                                  calculates the state sales tax,
var subtotal = document.getElementById("amount").value;
subtotal = parseFloat(subtotal);
                                                                  county sales tax, and total. It
var stateSalesTax = subtotal * .05;
var countySalesTax = subtotal * .025;
                                                                  assigns the element for total with
var total = subtotal + stateSalesTax + countySalesTax;
document.getElementById("total").value = total;
                                                                  the value of variable total.
</script>
<h1> Welcome to the Order Total Program </h1>
What is the amount of the purchase? <input type="text" id="amount">
The total for the order including state and county sales tax is $ <input type="text" id="total">
<input type="button" id="calculate" VALUE="CALCULATE" onclick=orderTotal()>
</body>
</html>
```

13

We create the header <h1> and paragraph 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.



Diamond Peer Teacher Jack Granieri

Male And Female Percentages HTML Coding Walkthrough



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;
17 -
```

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.

</script>

10

11

12

13

14

15

16

18

19 20

21

22

23

24

25

26

27 28

29

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

Exam 3: Opens tomorrow (12/8) at 6 AM Close Wednesday (12/9) at Midnight

Good luck on the final!

Assignments Reminder:

- 1) Coding assignment due by Tuesday 12/8 midnight
- 2) Learn IT#2 due by Tuesday 12/8 midnight
- 3) Complete eSFF by EOD today!