HTML/CSS/JavaScript Workshop/Example

CMSC434
HTML Template

- HTML is a hierarchical/nested specification
- HTML is rendered into a Document Object Model (DOM)
  - DOM-Tree: Structure to display HTML
  - If you modify the DOM, then the view in the browser also changes
CSS Selectors

- **#name** - Search for elements with specific id
- **.name** - Search for elements that contain a class
- **el#name** - Search for an element of type 'el' AND id of 'name'
- **el #name** - Search for elements that are children of 'el' with the id of 'name'
- **el1, el2** - Search for elements ‘el1’ and also ‘el2’

source: https://medium.com/@carsonf92/precise-targeting-with-css-selectors-745237a050b6
• Adding an HTML header to the body and CSS style

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Trivia Game</title>
  <style>
    body {
      background: black;
    }
    h1 {
      margin: auto;
      text-align: center;
      background: blue;
      color: white;
      width: 414px;
    }
  </style>
</head>
<body>
<h1>Trivia Game</h1>
</body>
</html>
```
- Adding a Table which will serve as a ‘container’ for the game and a fixed-size scrolling content box with some game directions.

```css
body {
  background: black;
}

h1 {
  margin:auto;
  text-align:center;
  background: blue;
  color: white;
}

h1, table.container {
  width: 414px;
}

table.container {
  margin:auto;
  background: white;
}

table.game {
  margin:auto;
  width: 100%;
}

td {
  width: 50%;
  height: 10%;
  vertical-align: top;
}

div.directions {
  font-size: x-large;
  overflow: auto;
  color: yellow;
  background-color: blue;
  padding: 8px;
  height: 100px;
}
```

```html
<body>
  <h1>Trivia Game</h1>
  <table class=container>
    <tr>
      <td class=game>
        <div class=direcitons>
          The directions to this game are pretty simple. Get the right answer, get 10 points. Get the wrong answer, get no points. When you run out of questions, you’ll see your score. That’s it. Good luck!
        </div>
      </td>
    </tr>
  </table>
</body>
```
Trivia Game

The directions to this game are pretty simple. Get the right answer, get 10 points. Get the wrong answer, get no points. When you run out of
• Adding the trivia question and game buttons

CSS

```css
    td {
        width:50%;
        height:10%;
        vertical-align:top;
    }
    span.question {
        font-size:xx-large;
    }
    span.choice {
        font-size:x-large;
    }
    button {
        width:100%;
        background:teal;
        color:yellow;
    }
    div.directions {
        font-size:x-large;
        overflow:auto;
        color:yellow;
        background-color:blue;
        padding:8px;
        height:100px;
    }
```
Trivia Game
Question Here

Choice One Here  Choice One Here

The directions to this game are pretty simple. Get the right answer, get 10 points. Get the wrong answer, get no points. When you run out of
javascript makes your site dynamic/interactive

• You can write functions that will run when an ‘event’ happens:
  • onclick
  • onmouseover
  • onload
  • onkeydown
  …
• As the page loads, we will ask the first question

HTML

```html
<body onload="setQ(currQuestion);">
<h1>Trivia Game</h1>
</body>
```

JavaScript

```javascript
var score = 0;
var currQuestion = 0;
var currAnswer = 0;
var questions = [];
var choices1 = [];
var choices2 = [];
var answers = [];

questions.push("Who was the 3rd president of the United States?");
choices1.push("John<br>Adams");
choices2.push("Thomas<br>Jefferson");
answers.push(2);

questions.push("Who was the 5th president of the United States?");
choices1.push("James<br>Monroe");
choices2.push("Abraham<br>Lincoln");
answers.push(1);

questions.push("Who was the US president after James Polk?");
choices1.push("Zachary<br>Taylor");
choices2.push("David Rice<br>Atchison");
answers.push(2);

function setQ(num) {
    document.getElementById("question").innerHTML = questions[num];
    document.getElementById("choice1").innerHTML = choices1[num];
    document.getElementById("choice2").innerHTML = choices2[num];
    currAnswer = answers[num];
}
```
## Trivia Game

Who was the 3rd president of the United States?

| John Adams | Thomas Jefferson |

The directions to this game are pretty simple. Get the right answer, get 10 points. Get the wrong answer, get no points. When you run out of
Adding the answer when a button is clicked.

```html
<body onload="setQ(currQuestion);">
<h1>Trivia Game</h1>
<div id="popup" class="popup">
  <div class="popup-content" id="popup-content">
    <span class="close">
      &times;&nbsp;</span>
  </div>
</div>
<table class="container">
  <tr class="game">
    <td colspan=2 style="...">
      <table class="question" id="question">
        <span class="question" id="question">Question Here</span>
      </table>
    </td>
  </tr>
  <tr style="...">
    <button type="button" id="button1" onclick="checkAnswer(1);">
      <span class="choice" id="choice1">Choice One Here</span>
    </button>
  </tr>
  <tr style="...">
    <button type="button" id="button2" onclick="checkAnswer(2);">
      <span class="choice" id="choice2">Choice Two Here</span>
    </button>
  </tr>
</table>
```

Adding the answer when a button is clicked (cont)

```javascript
function checkAnswer(num) {
  if (num == currAnswer) {
    document.getElementById('result').innerHTML = '&#10004;'; <!-- &10004 displays a 'check' -->
    document.getElementById('popup-content').style.backgroundColor = 'green';
    score++;
  } else {
    document.getElementById('result').innerHTML = '&#10008;'; <!-- &10008 displays an 'X' -->
    document.getElementById('popup-content').style.backgroundColor = 'red';
  }
  document.getElementById('popup').style.display = 'block';
}

function advanceQuestion() {
  if (currQuestion < questions.length-1) {
    currQuestion++;
    setQ(currQuestion);
  } else {
    document.getElementById('question').innerHTML = 'Score: ' + score;
    document.getElementById('button1').style.visibility = 'hidden';
    document.getElementById('button2').style.visibility = 'hidden';
  }
}
```
Adding the answer when a button is clicked (cont)