

Comp I25 - Visual Information Processing

Spring Semester 2018 - week 6 - monday

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Semantic HTML - example usage

```
<!-- incorrect element chosen -->  
<div id="code">  
  document.addEventListener('click', function () {  
    console.log('Click received...');  
  });  
</div>
```

```
<!-- correct element chosen -->  
<code>  
document.addEventListener('click', function () {  
  console.log('Click received...');  
});  
</code>
```

- semantic example usage

HTML & JavaScript - create a game - guess a letter

get letter from input field

- add **event listener** to the guess button
 - *listener is attached to the guess button*
 - *logic is executed each time a player clicks on this button*
 - *get the value of the letter entered by the player*
 - *value of input field for guess a letter*
 - log value to console for initial testing

```
// listen for user click on `guess` button
var guessBtn = document.getElementById('guessBtn');
guessBtn.addEventListener('click', function() {
  // get letter from input field
  var letter = document.getElementById('guess').value;
  console.log('letter = ' + letter);
  // check letter against
}, false);
```

HTML & JavaScript - create a game - HTML

update game page

- update HTML for game
 - add `<p>` for letter guess by player

```
<section id="updates">
  <header>
    <h3>game updates</h3>
  </header>
  <p id="guessLetter"></p>
  <p id="wordStatus"></p>
</section>
```

HTML & JavaScript - create a game - guess a letter

output letter from input field

- use **guess** letter from input field
 - output value to HTML for player

```
// listen for user click on `guess` button
var guessBtn = document.getElementById('guessBtn');
guessBtn.addEventListener('click', function() {
  // get letter from input field
  var letter = document.getElementById('guess').value;
  // output guess letter
  console.log('letter = ' + letter);
  document.getElementById('guessLetter').innerHTML = `guess letter: ` + letter;
  // check letter against
}, false);
```

- get element with ID guessLetter
 - set HTML to player's current **guess** letter

HTML & JavaScript - create a game - check guess letter

check letter against game word - part I

- use `includes()` method with `gameWord` string
 - initial check that guess letter is in game word

```
// check letter against game word
if (gameWord.includes(letter) === true) {
  console.log('letter has been found...');
} else {
  console.log('letter not found...');
  document.getElementById('guessLetter').innerHTML = 'letter not found - please try again...';
}
```

- log results of conditional statement to console
 - update player if guess letter not found in game word

HTML & JavaScript - create a game - check guess letter

check letter against game word - part 2

- loop through game word
 - check guess letter against each character in game word
 - e.g. *letter* in *gameWord*
 - if guess letter found in game word
 - add guess letter to matching index position in *answers* array
 - update string from *answer* array
 - output update guess word for player

```
for (i = 0; i < gameWord.length; i++) {  
  if (gameWord[i] === letter) {  
    console.log('letter = index ' + i);  
    answers[i] = letter;  
    // update game progress to player  
    var lettersOutput = answers.join(" "); // create string from answers array  
    document.getElementById('wordStatus').innerHTML = 'guess word: ' + lettersOutput;  
  }  
}
```

HTML & JavaScript - create a game - check guess letter

check letter against game word - part 3

```
// select guess button in document
var guessBtn = document.getElementById('guessBtn');

// listen for user click on `guess` button
guessBtn.addEventListener('click', function() {
    // get letter from input field
    var letter = document.getElementById('guess').value;
    // output guess letter
    console.log('letter = ' + letter);
    document.getElementById('guessLetter').innerHTML = 'guess letter: ' + letter;
    // check letter against game word
    if (gameWord.includes(letter) === true) {
        console.log('letter has been found...');
        for (i = 0; i < gameWord.length; i++) {
            if (gameWord[i] === letter) {
                console.log('letter = index ' + i);
                answers[i] = letter;
                // update game progress to player
                var lettersOutput = answers.join(" "); // create string from answers array
                document.getElementById('wordStatus').innerHTML = 'guess word: ' + lettersOutput;
            }
        }
    } else {
        console.log('letter not found...');
        document.getElementById('guessLetter').innerHTML = 'letter not found - please try again...';
    }
}, false);
```


References

- W3Schools - HTML Form Attributes
 - W3Schools - *HTML Form Elements*
- W3Schools - Math object