

MIS3690 - Web Technologies



JavaScript - Arrays

Arrays in JavaScript

- **Arrays** are list-like objects whose prototype has methods to perform *traversal* and *mutation* operations.
 - an **array** is a variable that can "*store*" **multiple** values
- e.g. create an **Array**

```
let fruits = ['Apple', 'Banana', 'Orange']  
console.log(fruits.length) // 3
```

- e.g. access an item in **Array** using the **index** position

```
let first = fruits[0]  
console.log(first) // Apple  
  
let last = fruits[fruits.length - 1]  
console.log(last) // Orange  
  
console.log(first[1]) // What is the output?
```

Arrays in **form**

- Example:

```
<form action="" method="post" id="my-form">
  <label><input type="radio" name="colors" value="red" />Red</label>
  <label><input type="radio" name="colors" value="blue" />Blue</label>
  <label><input type="radio" name="colors" value="yellow" />Yellow</label>
  <label><input type="radio" name="colors" value="green" />Green</label>
</form>
```

- JavaScript creates an array that represents a collection of radio elements

```
const colors = document.getElementById("my-form").elements["colors"];
console.log(colors[0].checked);
console.log(colors[0].value);
```

- How do we get **value** of the *checked* radio button?

using `if`?

- In function:

```
let userChoice;
if (colors[0].checked) {
  userChoice = colors[0].value;
} else if (colors[1].checked) {
  userChoice = colors[1].value;
} else if (colors[2].checked) {
  userChoice = colors[2].value;
} else {
  userChoice = colors[3].value;
}
console.log(userChoice);
...
```

- It does not look like a *very good* solution. **why?**

for statement

- Syntax (via [MDN](#))

```
for ([initialExpression]; [condition]; [incrementExpression]){  
    statement  
}
```

- Example:

```
let userChoice;  
for (let i = 0; i < colors.length; i++) {  
    const color = colors[i];  
    if (color.checked) {  
        userChoice = color.value;  
    }  
}  
console.log(userChoice);
```

In-class exercise: *ex17.html*

- Download *ex17.html* from GitHub (*MIS3690/resources/templates*)
- Clicking button will
 - **change** background color
 - **display** selection(s) in `textarea`
- *Extra*: add a dropdown menu (`select` and `option`) and use JavaScript to get value from it

Questions?

