Lesson   Monday

Introduction to Programming (/introduction-to-programming) / Arrays and Looping (/introduction-to-programming/arrays-and-looping) / Gathering Data with Checkboxes

Text   Cheat sheet

Examples

If we had the following form containing a group of checkboxes:

transportation_survey/index.html

```
<!DOCTYPE html>
<html lang="en-US">
<head>
  <title>Transportation Survey</title>
  <link href="css/styles.css" rel="stylesheet" type="text/c
ss">
  <script src="js/scripts.js"></script>
</head>
<body>
  <h2>Transportation Survey</h2>
  <form id="transportation_survey">
    <p>In the past year, I have used the following modes of
transportation to travel to work or school:</p>
    <label>
      <input type="checkbox" name="transportation-option" v
alue="bike">
      Riding a bike.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="car">
      Driving a car.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="carpool">
      Carpooling with others.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="walk">
      Walking.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="bus">
      Riding the bus.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="train">
```

```
      Riding the train.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="streetcar">
      Riding the streetcar.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="taxi">
      Taking a taxi.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="rideshare">
      Using a rideshare service like Lyft or Uber.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="skateboard">
      Skateboarding.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="rollerblade">
      Rollerblading.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="scooter">
      Riding a scooter.
    </label><br />
    <label>
      <input type="checkbox" name="transportation-option" v
alue="other">
      Another mode of transportation not listed here.
    </label><br />
    <button type="submit">Submit Survey</button>
  </form>
</body>
</html>
```

This JavaScript would retrieve all selected checkboxes, create a heading for the survey results, and append their values to a span in our HTML:

transportation_survey/js/scripts.js

```javascript
function handleForm(event) {
  event.preventDefault();
  const userSelections = document.querySelectorAll("input[name=transportation-option]:checked");
  const userSelectionsArray = Array.from(userSelections);

  const resultsHeading = document.createElement("h2");
  resultsHeading.append("You use the following methods of transportation to travel to work or school:");
  document.body.append(resultsHeading);

  userSelectionsArray.forEach(function(element) {
    const paragraph = document.createElement("p");
    paragraph.append(element.value);
    document.body.append(paragraph);
  });
}

window.addEventListener("load", function() {
  document.querySelector("form#transportation_survey").addEventListener("submit", handleForm);
});
```

- `event.preventDefault()` is added to prevent the 'submit' event's default action of refreshing the page.
- `const userSelections = document.querySelectorAll("input[name=transportation-option]:checked");` is added to get all of the checkbox inputs that have been checked. We could instead pass in these arguments to the `document.querySelectorAll()` method:
  - `"[name=transportation-option]:checked"`
  - `"input:checked"`

- Whatever you choose really depends on what's easiest to read so that your code is easy to understand, and what other inputs and forms you have in your webpage.
- We turn the variable `userSelections` which is a `NodeList` object into an array with: `const userSelectionsArray = Array.from(userSelections);`
- We call `Array.prototype.forEach()` on the `userSelectionsArray` variable, passing in a callback function as the argument to the method.

The Callback Function

The callback function is as follows:

```
function(element) {
  const paragraph = document.createElement("p");
  paragraph.append(element.value);
  document.body.append(paragraph);
}
```

The `element` parameter is the placeholder for the actual array element. Each element in our array is an `HTMLInputElement` with a `value` property that gets the value of the input. So, for every element in our array, we:

- Create a new HTML paragraph element, with `const paragraph = document.createElement("p");`.
- Add the input's value (`element.value`) as the text to that paragraph element, with `paragraph.append(element.value);`.
- Add the new paragraph to the inside/end of our document's body tag with `document.body.append(paragraph);`.

An Alternate Way of Organizing Checkboxes

The following organization of checkboxes connects the label and the input by giving the same value to the `for` (on the label) and `id` (on the input) attributes:

```
<label for="bike">Riding a bike.</label><br />
<input type="checkbox" name="transportation-option" value
="car" id="car">
<label for="car">Driving a car.</label><br />
<input type="checkbox" name="transportation-option" value
="carpool" id="carpool">
<label for="carpool">Carpooling with others.</label><br />
<input type="checkbox" name="transportation-option" value
="walk" id="walk">
<label for="walk">Walking.</label><br />
<input type="checkbox" name="transportation-option" value
="bus" id="bus">
<label for="bus">Riding the bus.</label><br />
<input type="checkbox" name="transportation-option" value
="train" id="train">
<label for="train">Riding the train.</label><br />
<input type="checkbox" name="transportation-option" value
="streetcar" id="streetcar">
<label for="streetcar">Riding the streetcar.</label><br />
<input type="checkbox" name="transportation-option" value
="taxi" id="taxi">
<label for="taxi">Taking a taxi.</label><br />
<input type="checkbox" name="transportation-option" value
="rideshare" id="rideshare">
<label for="rideshare">Using a rideshare service like Lyft
or Uber.</label><br />
<input type="checkbox" name="transportation-option" value
="skateboard" id="skateboard">
<label for="skateboard">Skateboarding.</label><br />
<input type="checkbox" name="transportation-option" value
="rollerblade" id="rollerblade">
<label for="rollerblade">Rollerblading.</label><br />
<input type="checkbox" name="transportation-option" value
="scooter" id="scooter">
<label for="scooter">Riding a scooter.</label><br />
<input type="checkbox" name="transportation-option" value
="other" id="other">
<label for="other">Another mode of transportation not liste
d here.</label><br />
```

Previous (/introduction-to-programming/arrays-and-looping/practice-looping)
Next (/introduction-to-programming/arrays-and-looping/practice-foreach-loops)

Lesson 20 of 50
Last updated March 24, 2023

disable dark mode

(http://www.epicodus.com)