Introduction to the DOM Tutorial

In this tutorial you are going to be introduced to a Todo application that you will be using over the next few weeks. The starting code for this tutorial is located in this directory in the folder `todo`. The objective of this project is to get some practice making changes to the DOM.

Todo App

If you take a look at the `index.html` template you will notice that there isn't much going on. You have a container div with an id of todos. In this element you will be adding a h1 tag, ul and a list (li) of tasks.

```
<html>
<body>
    <div id="todos" class="todo-list">
        <!-- YOUR CONTENT GOES HERE -->
    </div>
    <script src="js/app.js"></script>
</body>
</html>
```

All the work you're going to do this for tutorial will be `js/app.js` so please open that up now. The first thing you need to do is to get a reference to our container element which has an id of `todos`. If you remember from the reading material you should always reach for `getElementById()` if the element has an id so that is what you are going to do here.

```
const todoList = document.getElementById('todos');
```

Next you're going to setup some variables for your page title and array of todos. These values will change later so make sure to use `let` instead of `const`.

```
let todos = [];
let pageTitle = '';
```

Next you're going to create a method that assigns a page title and array of todos.

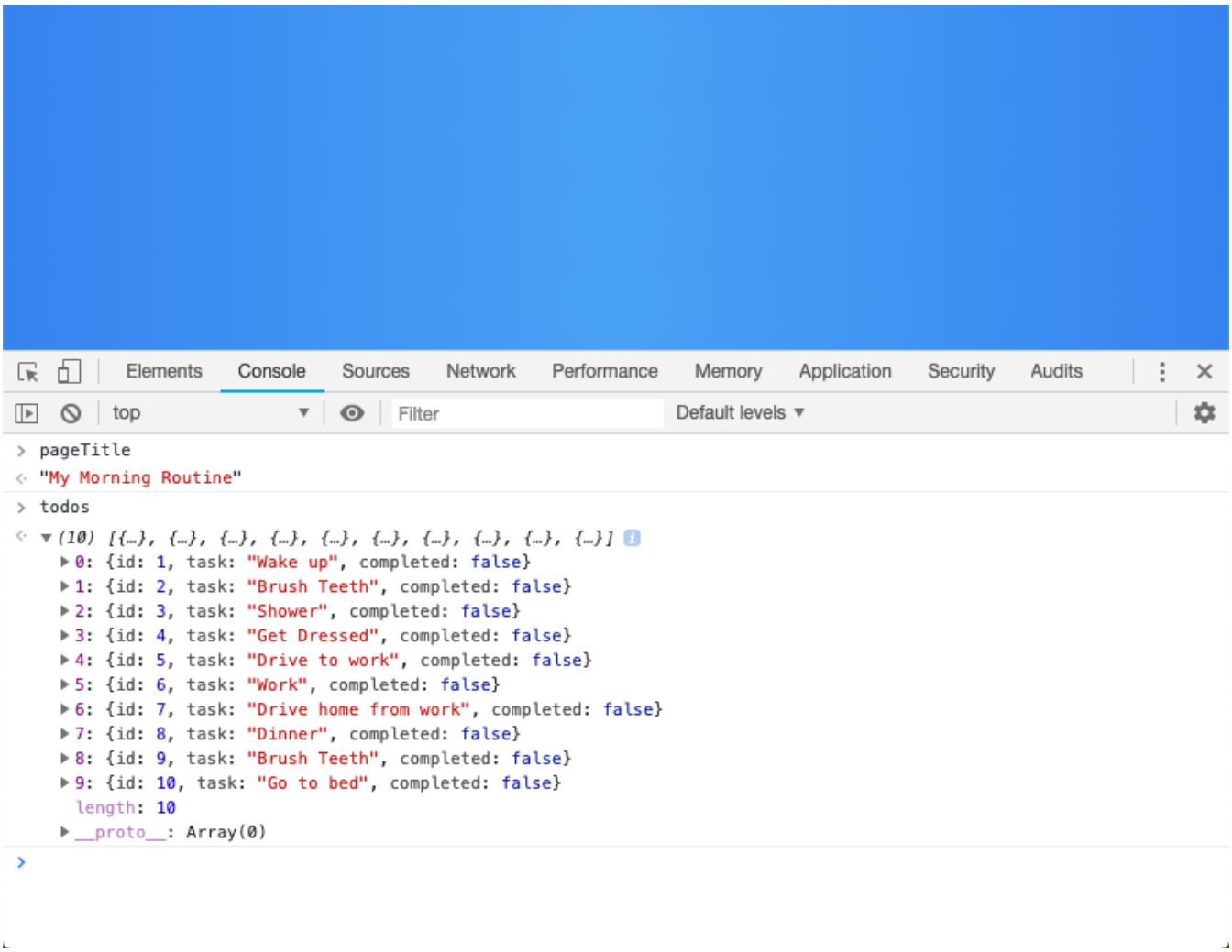
```
function init() {
  pageTitle = 'My Morning Routine';
  todos = [
    { id: 1, task: 'Wake up', completed: false },
    { id: 2, task: 'Brush Teeth', completed: false },
    { id: 3, task: 'Shower', completed: false },
    { id: 4, task: 'Get Dressed', completed: false },
    { id: 5, task: 'Drive to work', completed: false },
    { id: 6, task: 'Work', completed: false },
    { id: 7, task: 'Drive home from work', completed: false },
    { id: 8, task: 'Dinner', completed: false },
    { id: 9, task: 'Brush Teeth', completed: false },
```

```
    { id: 10, task: 'Go to bed', completed: false }
  ]
}
```

And at the bottom of the template call this init method to initialize your data.

```
// setup our page title and tasks
init();
```

You should be able to run the tutorial using live server and print out the values of pageTitle and todos to the console.



Adding Page Title

Next you are going to create a method to add your page title to your web page. There isn't an H1 that you can add data to so before you can set the page title you will need to create an element. Once you have a reference to that element you can set the inner text of that element to the page title you initialized above. Finally you can use the todoList that you got a reference to earlier and append your new h1 element to it.

```
function addPageTitle() {
  const heading = document.createElement('h1')
  heading.innerText = pageTitle;
```

```
  todoList.appendChild(heading);
}
```

Right after you call `init()` you can call your `addPageTitle()` method.

```
// setup our page title and tasks
init();
// // add page title to the DOM
addPageTitle();
```

Adding Todos

The first thing you're going to do is to create a method call `addTodos`. In this method you're going to create a new unordered list `<ul>` element, get a reference to it and append it to your todoList container. With that reference you are going to add a new list item `<li>` for each todo in the array.

```
function addTodos() {
  const ul = document.createElement('ul');
=  todoList.appendChild(ul);
}
```

Each list item that you add to the DOM is going to look like this:

```
<li>
    Your Task Name
</li>
```

You can use a for each loop here to iterate over each todo in the array. During each iteration you are going to create a new list item element and set the inner text to the value from `todo.task`.

```
todos.forEach(todo => {
    const li = document.createElement('li')
    li.innerText = todo.task
    ul.appendChild(li)
});
```

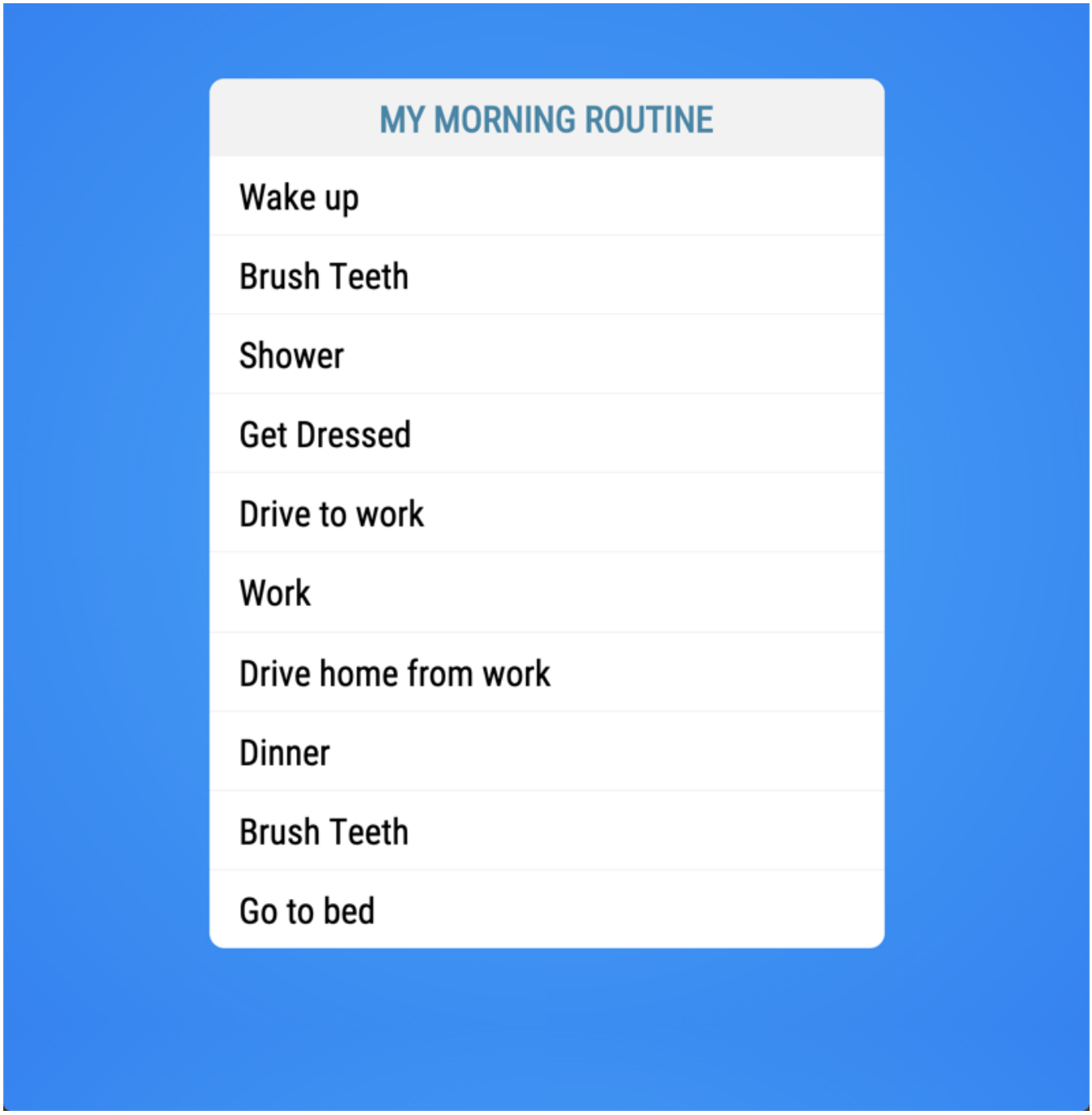
Finally call your `addTodos()` method below your 2 other calls.

```
// setup our page title and tasks
init();
// // add page title to the DOM
addPageTitle();
// // add the task to the DOM
addTodos();
```

If you run the application you should get a list of all the todos in the array.

My Morning Routine

If you followed the tutorial correctly you should be able to run the application and see the following. If you don't see the application you can take a look in the console and see what is going on.



This is what the final solution for this tutorial looks like

```
const todoList = document.getElementById('todos');

let todos = [];
let pageTitle = '';

function init() {
  pageTitle = 'My Morning Routine';
  todos = [
    { id: 1, task: 'Wake up', completed: false },
    { id: 2, task: 'Brush Teeth', completed: false },
```

```
    { id: 3, task: 'Shower', completed: false },
    { id: 4, task: 'Get Dressed', completed: false },
    { id: 5, task: 'Drive to work', completed: false },
    { id: 6, task: 'Work', completed: false },
    { id: 7, task: 'Drive home from work', completed: false },
    { id: 8, task: 'Dinner', completed: false },
    { id: 9, task: 'Brush Teeth', completed: false },
    { id: 10, task: 'Go to bed', completed: false }
  ]
}

function addPageTitle() {
  const heading = document.createElement('h1')
  heading.innerText = pageTitle;
  todoList.appendChild(heading);
}

function addTodos() {
  const ul = document.createElement('ul');
  todos.forEach(todo => {
    const li = document.createElement('li')
    li.innerText = todo.task
    ul.appendChild(li)
  });
  todoList.appendChild(ul);
}

// setup our page title and tasks
init();
// // add page title to the DOM
addPageTitle();
// // add the task to the DOM
addTodos();
```