

Event-Driven Programming

Buttons with Divs

HTML + CSS + JavaScript

- Start with simple web page
 - HTML and CSS, with `<div>` and ID
 - Introduce Button, connect to functionality
 - Introduce JavaScript, controlled by button
- Build toward interactive, JavaScript controlled web pages
 - Using HTML tags, ID's and other elements, the code you write will be able to add to and modify the pages you create

HTML + CSS + JavaScript

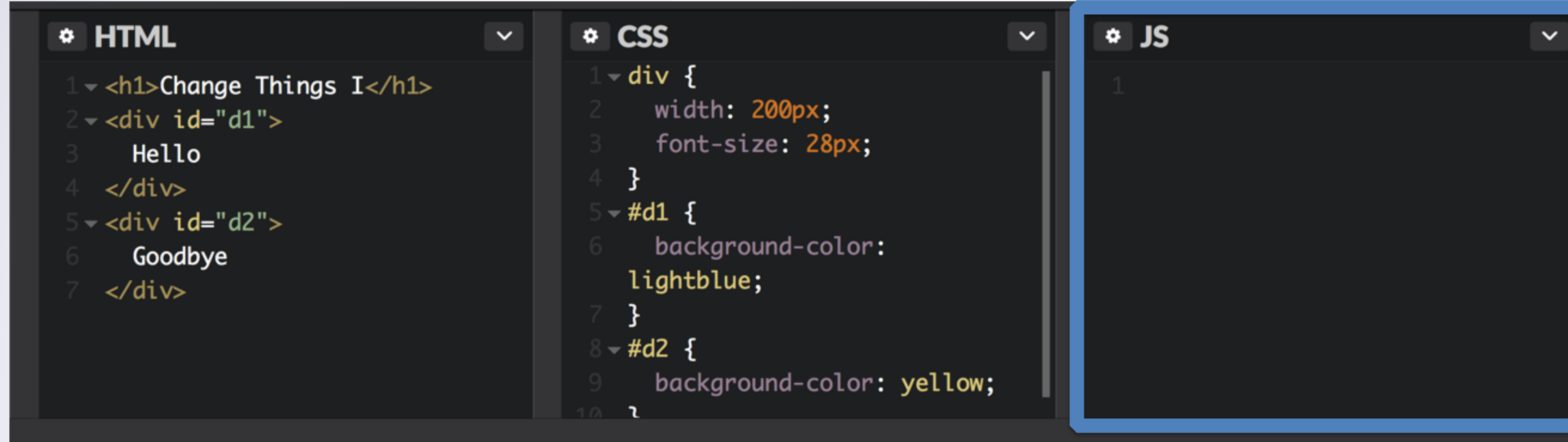
```
HTML
1 <h1>Change Things I</h1>
2 <div id="d1">
3   Hello
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color:
  lightblue;
7 }
8 #d2 {
9   background-color: yellow;
10 }
```

Change Things I

Hello
Goodbye

HTML + CSS + JavaScript

A screenshot of a code editor with three panels. The left panel is titled 'HTML' and contains the following code:

```
1 <h1>Change Things I</h1>
2 <div id="d1">
3   Hello
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>
```

 The middle panel is titled 'CSS' and contains the following code:

```
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color:
7     lightblue;
8 }
9 #d2 {
10  background-color: yellow;
```

 The right panel is titled 'JS' and is currently empty. The JS panel is highlighted with a blue border.

Change Things I

Hello
Goodbye

- HTML | CSS | JS windows

HTML + CSS + JavaScript



```
HTML
1 <h1>Change Things I</h1>
2 <div id="d1">
3   Hello
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color: lightblue;
7 }
8 #d2 {
9   background-color: yellow;
10 }

JS
1
```

Change Things I

Hello
Goodbye

- HTML | CSS | JS windows
- Two `<div>` elements

HTML + CSS + JavaScript



```
HTML
1 <h1>Change Things I</h1>
2 <div id="d1">
3   Hello
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color: lightblue;
7 }
8 #d2 {
9   background-color: yellow;
10 }

JS
1
```

Change Things I

Hello
Goodbye

- HTML | CSS | JS windows
- Two `<div>` elements
- `<div>`'s are styled by CSS

HTML + CSS + JavaScript



```
HTML
1 <h1>Change Things I</h1>
2 <div id="d1">
3   Hello
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color: lightblue;
7 }
8 #d2 {
9   background-color: yellow;
10 }

JS
1
```

Change Things I

Hello
Goodbye

- HTML | CSS | JS windows
- Two <div> elements
- <div>'s are styled by CSS

Creating an HTML Button

```
<input type = "button" value = "change"  
      onclick = "alert('clicked button')" >
```


Creating an HTML Button

```
<input type = "button" value = "change"  
      onclick = "alert('clicked button')"
```

>

<input> tag

Creating an HTML Button

```
<input type = "button" value = "change"  
  onclick = "alert('clicked button')" >
```

type attribute

type of input

Creating an HTML Button

```
<input type = "button" value = "change"  
  onclick = "alert('clicked button')" >
```

value attribute

text on button

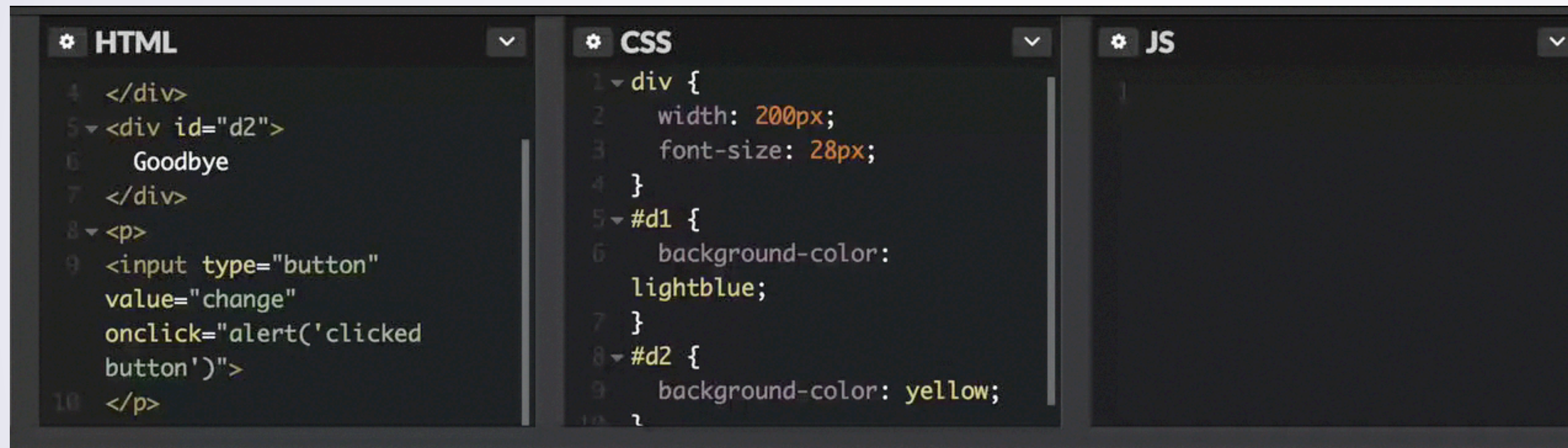
Creating an HTML Button

```
<input type = "button" value = "change"  
  onclick = "alert('clicked button')" >
```

onclick attribute: triggers event handler on click
action for the button to do

Creating an HTML Button

```
<input type = "button" value = "change"  
      onclick = "alert('clicked button')" >
```



The screenshot shows a code editor with three panels: HTML, CSS, and JS. The HTML panel contains the following code:

```
4 </div>  
5 <div id="d2">  
6   Goodbye  
7 </div>  
8 <p>  
9   <input type="button"  
10  value="change"  
   onclick="alert('clicked  
   button')">  
11 </p>
```

The CSS panel contains the following code:

```
1 div {  
2   width: 200px;  
3   font-size: 28px;  
4 }  
5 #d1 {  
6   background-color:  
7   lightblue;  
8 }  
9 #d2 {  
10  background-color: yellow;  
11 }
```

The JS panel is empty.

Change Things I

Hello
Goodbye

change

Calling a JavaScript Function

```
<input type = "button" value = "change"  
      onclick = "alert('clicked button') " >
```

Calling a JavaScript Function

```
<input type = "button" value = "change"  
      onclick = "dochange()"           " >
```

```
function dochange() {  
    alert('clicked button') ;  
}
```


Calling a JavaScript Function

```
HTML
4 </div>
5 <div id="d2">
6   Goodbye
7 </div>
8 <p>
9   <input type="button"
    value="change"
    onclick="alert('clicked
    button')">
10 </p>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5 #d1 {
6   background-color:
    lightblue;
7 }
8 #d2 {
9   background-color: yellow;
10 }
```

Change Things I

Hello
Goodbye

change

Summary

- Use an `<input>` HTML element
 - Here, created button, see other types later
- *onclick* event handler
- Call JavaScript function
- Use code for more complex interactions!