DCI Digital Career Institute

Welcome to the Live Coding Session

Let's have some fun with code

Exploring HTML, CSS, and JavaScript: Building Interactive Web Experiences

DCI

Presentation link   https://tinyurl.com/dci-livecode-pdf

Coding from scratch https://tinyurl.com/dci-livecode

The final code   https://tinyurl.com/dci-animation

Introduction to HTML, CSS, and JavaScript

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HTML

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DCI / Introduction to HTML, CSS, and JavaScript

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Introduction to HTML, CSS, and JavaScript

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CSS (Cascading Style Sheets) is a style sheet language used for describing the presentation and appearance of a document written in HTML.

JavaScript is a programming language that adds interactivity and behavior to web pages.

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HTML - Hypertext Markup Language

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- HTML uses tags to define different elements such as headings, paragraphs, lists, images, links, forms, and more.
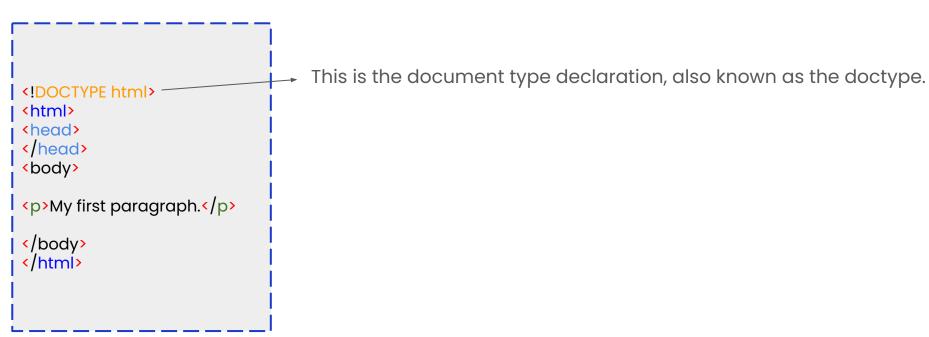
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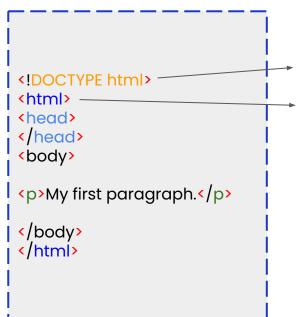
- HTML uses tags to define different elements such as headings, paragraphs, lists, images, links, forms, and more.

- HTML documents are structured using a hierarchical format called the Document Object Model (DOM).

HTML - Hypertext Markup Language

```html
<!DOCTYPE html>
<html>
<head>
</head>
<body>

<p>My first paragraph.</p>

</body>
</html>
```

This is the document type declaration, also known as the doctype.

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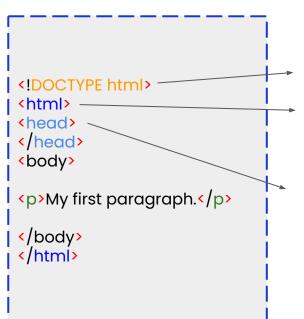
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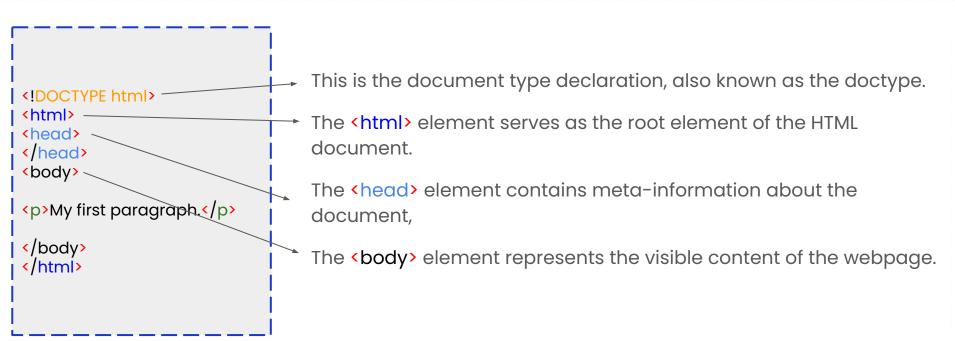
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The `<head>` element contains meta-information about the document,

The `<body>` element represents the visible content of the webpage.

CSS (Cascading Style Sheets)

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- CSS allows for advanced features like animations, transitions, and responsive design with media queries.

Let's Write HTML Code Together

Let's add a heading to our webpage. Inside the **‹body›** tags, type:

Learn for a new life

```html
HTML
1
2  <!DOCTYPE html>
3  <html>
4    <head>
5      <title>
6        Live coding with DCI
7      </title>
8    </head>
9    <body>
10     <h3>Learn for a new life</h3>
11    </body>
12  </html>
```

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Let's Write HTML Code Together

Now let's add a container element to **‹div›**. Inside the **‹body›** tags

Learn for a new life

```
HTML    34 unsaved changes ✕
1
2    <!DOCTYPE html>
3 ▾  <html>
4 ▾    <head>
5 ▾      <title>
6          Live coding with DCI
7        </title>
8      </head>
9      <body>
10 ▾     <h3>Learn for a new life</h3>
11 ▾     <div>
12
13        </div>
14      </body>
15   </html>
```

Let's Write HTML Code Together

Adding Super Mario icon inside our **‹div›**


```html
      </head>
      <body>
         <h3>Learn for a new life</h3>
         <div>
            <i class="nes-mario"></i>
         </div>
      </body>
   </html>
```

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Let's Write HTML Code Together

Let's Style our `<div>`.


```
 HTML
  6          Live coding with DCI
  7      </title>
  8 ▾    <style>
  9 ▾      div{
 10            width: 100%;
 11            height: 450px;
 12            border-top: 10px solid red;
 13            border-bottom: 10px solid red;
 14            padding: 10px;
 15            margin-top:10px;
 16            position: relative;
 17            background:
    url(https://raw.githubusercontent.com/ShiarOs/DCI-
    LiveCode/main/city.png);
 18        }
 19      </style>
 20    </head>
 21 ▾  <body>
 22 ▾    <h3>Learn for a new life</h3>
 23 ▾    <div>
 24      <i class="nes-mario"></i>
 25    </div>
```

Let's Write HTML Code Together

Adding some animations.

```
    <style>
        div{
            width: 100%;
            height: 450px;
            border-top: 10px solid red;
            border-bottom: 10px solid red;
            padding: 10px;
            margin-top:10px;
            position: relative;
            background:
url(https://raw.githubusercontent.com/ShiarOs/DCI-
LiveCode/main/city.png);
            animation: move-city 10s linear;
            animation-iteration-count: infinite;
        }
        @keyframes move-city {
            0%      {background-position: 0 0;}
            100%    {background-position: -2937px 0;}
        }
    </style>
```

HTML

Animate Super Mario

```
i{
        position: absolute;
        top:30px;
        left: 50px;
        animation:
        mario-jump 1.5s 3s alternate;
        animation-iteration-count: infinite;
    }

@keyframes mario-jump{
        from {top: 0px;}
        to    {top: 60px;}
    }
```

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Adding one more animation to the same item

```
i{
        position: absolute;
        top:30px;
        left: 50px;
        animation:
        mario-jump 1.5s 3s alternate,
        come-fast 10s linear;
        animation-iteration-count: infinite;
    }
@keyframes come-fast {
        0% {left:-100px; top:0px;transform: rotate(0);}
        25% {left:20px; top: 30px;transform: rotate(0);}
        50% {left: 50%; top: 50%; transform: rotate(90deg);}
        75% {left: 75%; top: 30%;transform: rotate(99990deg);}
        100% {left: 100%; top: 0px;transform: rotate(0);}
    }
```

DCI / Let's try to add some JavaScript

```
    .dark-mode {
        background-color: black;
        color: white;
    }
</style>
<script>
  document.body.onkeyup = function(e){
        if(e.keyCode == 32){
        var element = document.body;
        element.classList.toggle("dark-mode");
        }
    }
</script>
```