

Part Two:

Create Your Own Web Operating System (OS)

ThomasOS

Always Learning ☁

7/23/2023, 2:46:43 PM

Notes

Angel Hacks (Hack

Angel Hacks (Hack

Carolina Hacks



Carolina Hacks is South Carolina's first student-led Hackathon for high schoolers.

At our hackathon, high schoolers will

Watch Documentary

0:00 / 4:07

ALRIGHT

Giving Giraffee (Hackathon Project)




Giving Giraffe

Clara. Thomas. Dieter

0:00 / 4:17

Welcome




ThomasOS

ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

Notes - Welcome

Welcome
06/28/2023

Sample Text
06/28/2023



This is a place where I store my thoughts as they come to mind. What exactly will you find when browsing through these notes? As I ~~once said~~ always say.

Epoch (Hackathon I Attended)



Monday morning, [it's] Boxing Day here in Singapore.

0:02 / 4:58

Photo



**Build Your Own personalOS
(that's all about you!)**

Today We're Going To Be...

Making The Desktop!

ThomasOS

☀️ Always Learning ☁️

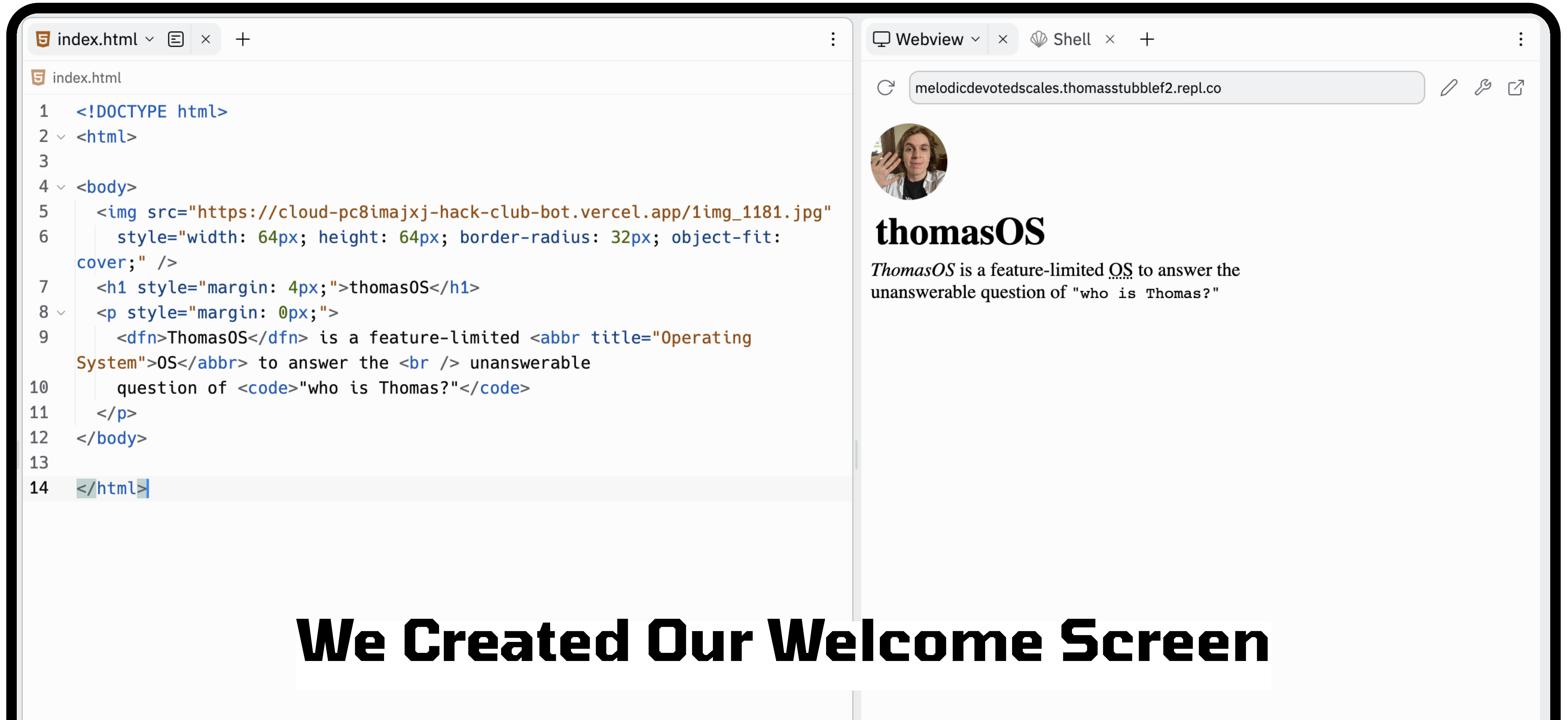
6/21/2023, 4:59:31 PM



thomasOS

ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

Where we left off:



The image shows a side-by-side comparison of a code editor and a web browser. The code editor on the left displays the HTML code for a welcome screen, and the browser on the right shows the rendered output.

```
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5   
7   <h1 style="margin: 4px;">thomasOS</h1>
8   <p style="margin: 0px;">
9     <dfn>ThomasOS</dfn> is a feature-limited <abbr title="Operating
System">OS</abbr> to answer the <br /> unanswerable
10     question of <code>"who is Thomas?"</code>
11   </p>
12 </body>
13
14 </html>
```

The browser window shows the rendered page with the URL `melodicdevotedscales.thomasstubblef2.repl.co`. The page features a circular profile picture of a person, the title **thomasOS**, and a paragraph of text: *ThomasOS* is a feature-limited OS to answer the unanswerable question of "who is Thomas?".

We Created Our Welcome Screen

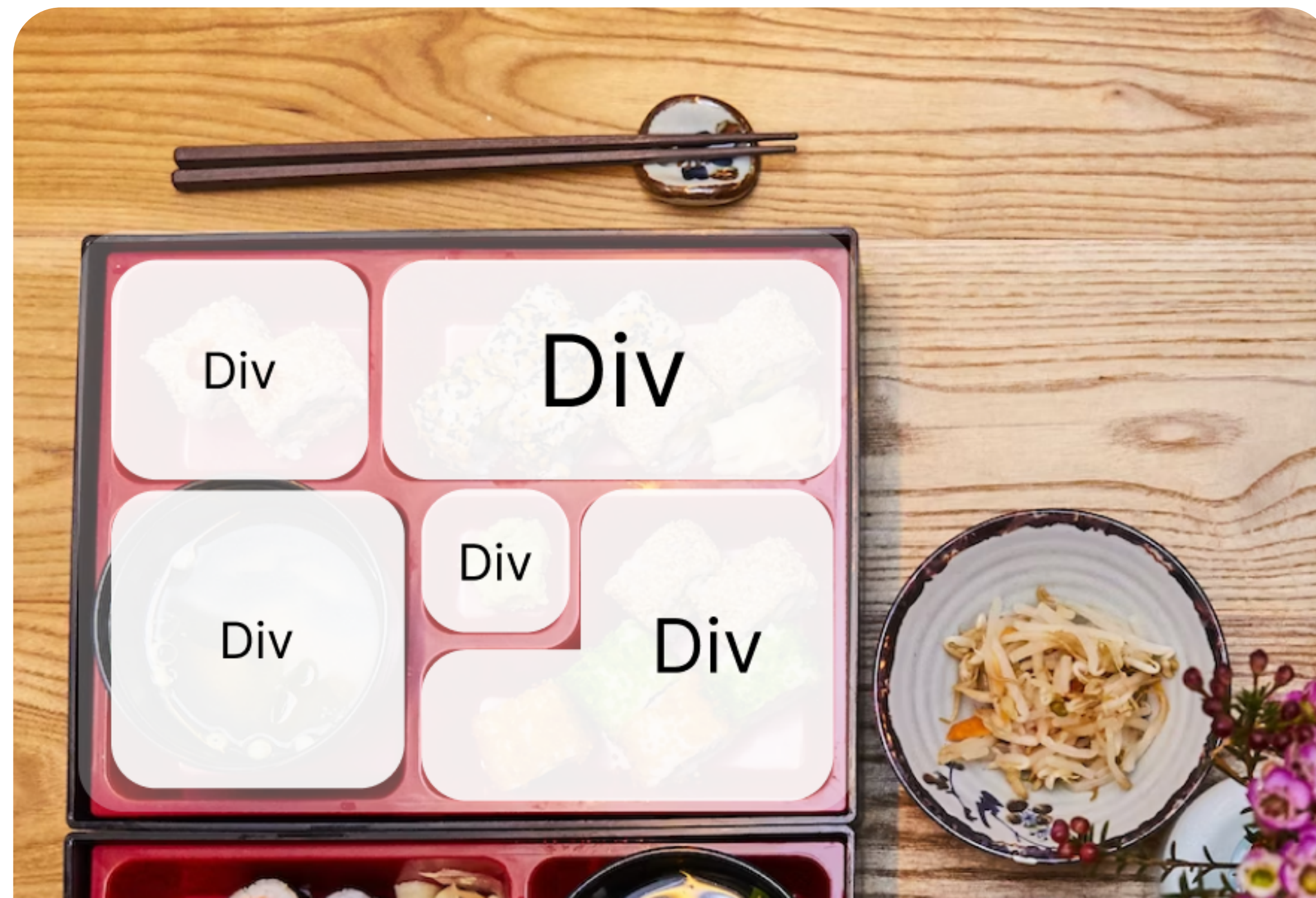
**We need to turn our welcome
screen into a “window”**

We can do that using a...



Divs are beloved by all Hackers.

We refer to groupings/boxes as divs. You can create divs inside of divs if, for example:



**The Div Can Be Used to Define
Where Our Windows Begins
and Where it Ends**

Create a Div!

```
<body>  
  <div>  
    (the content of your site)  
  </div>  
</body>
```

(this groups your content)

Outline Your Window

```
<div style="border: solid;">  
    (content)  
</div>
```

**(this makes it obvious where your window begins
& where it ends)**

```

1  <!DOCTYPE html>
2  <html>
3
4  <body>
5  <div style="border: solid">
6    
8    <h1 style="margin: 4px;">thomasOS</h1>
9    <p style="margin: 0px;">
10     <dfn>ThomasOS</dfn> is a feature-limited <abbr title="Operating
System">OS</abbr> to answer the <br />
11     unanswerable
12     question of <code>"who is Thomas?"</code>
13   </p>
14 </div>
15 </body>
16
17 </html>

```



thomasOS

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Provide a Width


```
<div style="border: solid; width: 128px;">  
    (content) (pick your own width)  
</div>
```

**(you can also add a border-radius
if you want rounded corners)**

```
index.html
index.html
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5   <div style="border: solid; border-radius: 16px; width: fit-
6     content;">
7     
11     <h1 style="margin: 4px;">thomasOS</h1>
12     <p style="margin: 0px;">
13       <dfn>ThomasOS</dfn> is a feature-limited <abbr title="Operating
14        System">OS</abbr> to answer the <br />
15        unanswerable
16        question of <code>"who is Thomas?"</code>
17     </p>
18   </div>
19 </body>
20 </html>
```

Ln 16, Col 1 History

Webview Shell melodicdevotedscales.thomasstubblef2.repl.co



thomasOS

ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

WE NEED MORE SPACE IN HERE



We Should Add Some _____

(fill in the blank)

We Should Add Some PADDING!

```
<div style="padding: 16px; (additional styles)">  
    (content)  
</div>
```

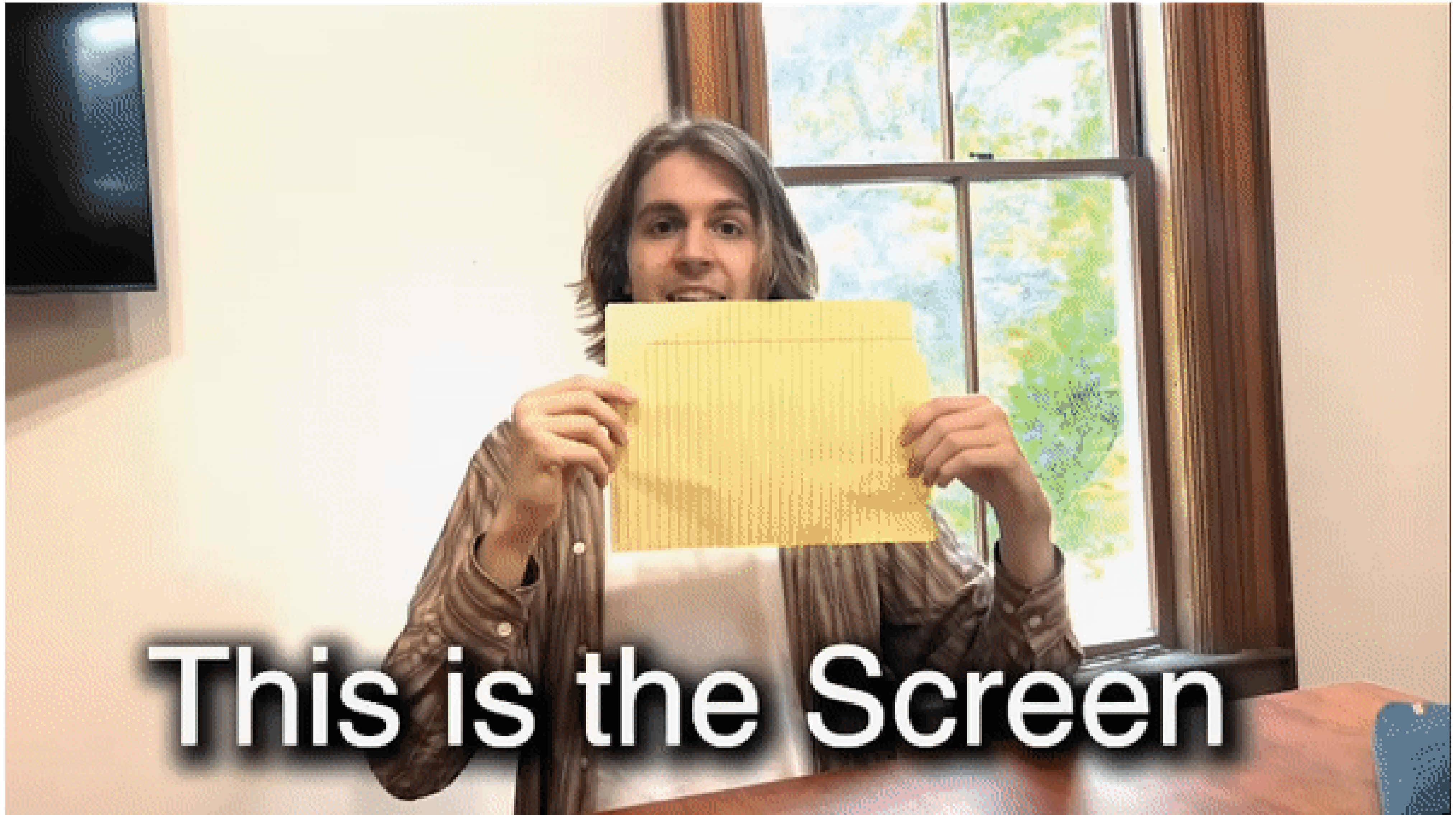
Ah... that feels much better!
So much more space

**Great. We now
have our window.**

**Let's Place it On Top
Of Our Desktop**

Let's use Position Absolute

```
<div style="position: absolute; (additional styles)">  
    (content)  
</div>
```



This is the Screen

Let's Center It

```
<div style="position: absolute; top: 50%; left: 50%;  
transform: translate(-50%, -50%); (additional styles)">  
    (content)  
</div>
```

**(the Transform allows us to position
around the center instead of the top right)**



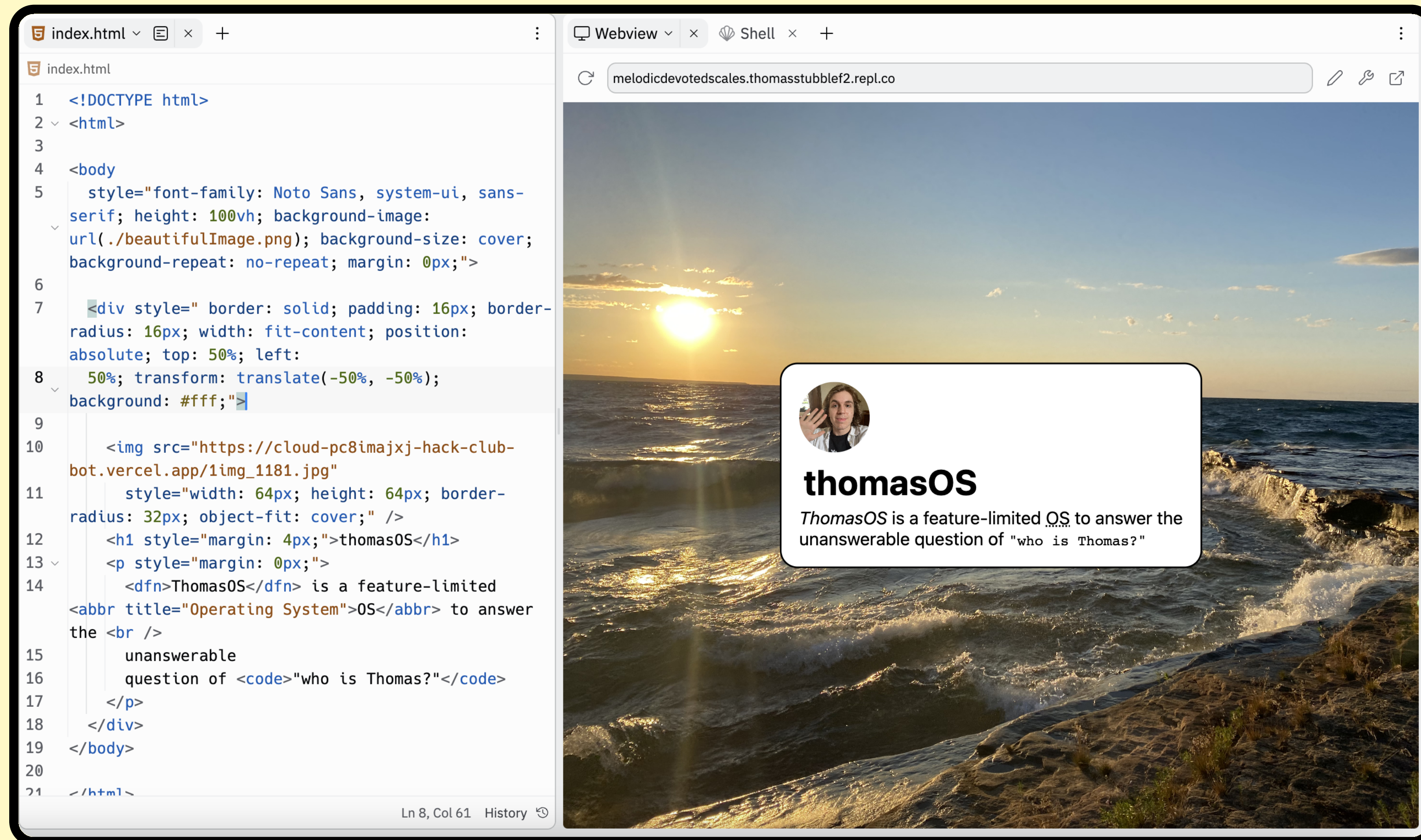
thomasOS

ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

Add Background Image

1. Find your image (I'll be using a photo I took in Michigan)
2. Drag it into Replit (the file manager)
3. On your body tag as the style property of `background-image: url(./NAME_OF_YOUR_IMAGE.png)`
4. Adding `background-size: cover;` to the body to make the size of the image fit the screen.
5. If your image still isn't quite fitting, add `height: 100vh` as a property to your body. This will make the height of the background 100% of the vertical height of your browser.

Beautiful!



The image shows a side-by-side comparison of a code editor and a web browser. The code editor on the left displays the HTML code for a page, and the browser on the right shows the rendered output.

```
1 <!DOCTYPE html>
2 <html>
3
4 <body
5   style="font-family: Noto Sans, system-ui, sans-serif; height: 100vh; background-image:
6     url(/beautifulImage.png); background-size: cover; background-repeat: no-repeat; margin: 0px;">
7   <div style="border: solid; padding: 16px; border-radius: 16px; width: fit-content; position: absolute; top: 50%; left:
8     50%; transform: translate(-50%, -50%); background: #fff;">
9
10     
12     <h1 style="margin: 4px;">thomasOS</h1>
13     <p style="margin: 0px;">
14       <dfn>ThomasOS</dfn> is a feature-limited
15 <abbr title="Operating System">OS</abbr> to answer
16 the <br />
17   unanswerable
18   question of <code>"who is Thomas?"</code>
19     </p>
20   </div>
21 </body>
22 </html>
```

The browser window shows the rendered page with a background image of a sunset over the ocean. A white rounded rectangle is overlaid on the page, containing a profile picture of a man and the text:

thomasOS
ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

Let's Make a Top Bar for our OS

```
<div>
```

```
</div>
```

**Create a new Div
Inside Your Body**

Align Items Horizontally

```
<div style="display: flex;">  
  <p>  
    ThomasOS  
  </p>  
  <p>  
    6/21/2023 3:41 PM  
  </p>  
</div>
```

Customize Spacing

CSS justify-content

[← Previous](#)

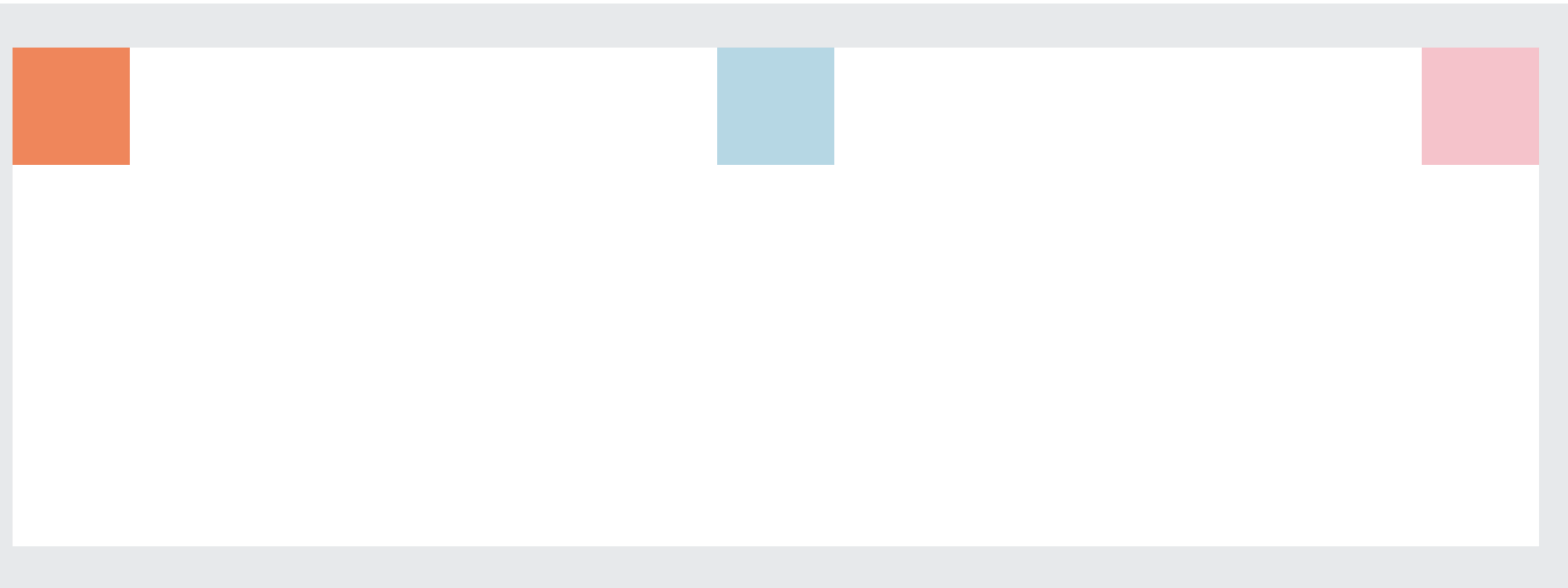
justify-content ▾

[Next >](#)

Demo of the different values of the justify-content property.

Click the property values below to see the result:

- `justify-content: flex-start;`
- `justify-content: flex-end;`
- `justify-content: center;`
- `justify-content: space-between;`
- `justify-content: space-around;`
- `justify-content: space-evenly;`



Play more with the code in our Tryit yourself editor:

[Try it Yourself >](#)

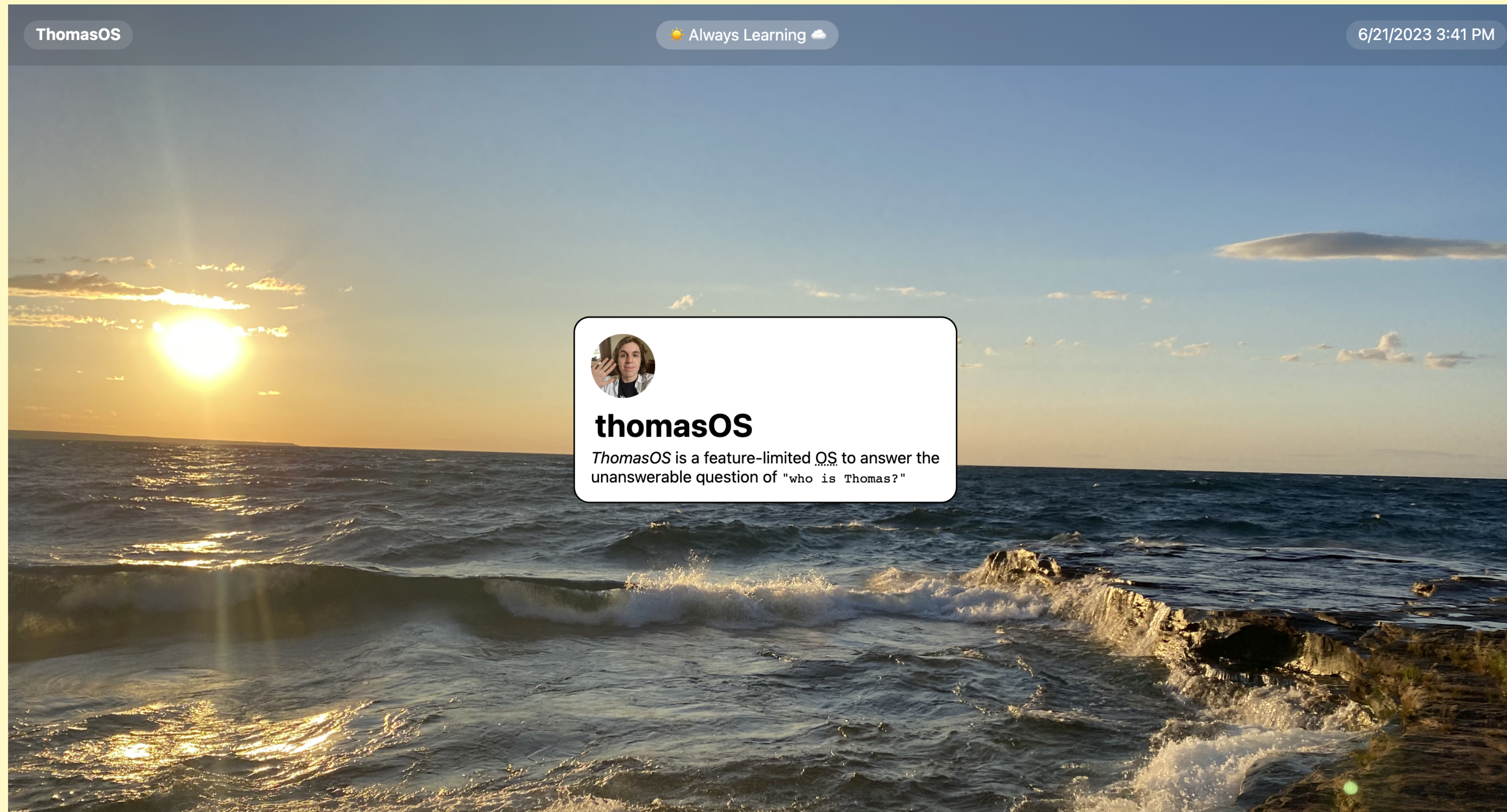
Add a Topbar Overlay

```
<div  
  style="background-color: rgba(0, 0, 0, 0.25); color: #fff; (other styles)">  
  <p style="margin-left: 16px;">  
    ThomasOS  
  </p>  
  <p style="margin-right: 16px;">  
    6/21/2023 3:41 PM  
  </p>  
</div>
```

p.s. you can add **backdrop-filter: blur(10px);** to blur background

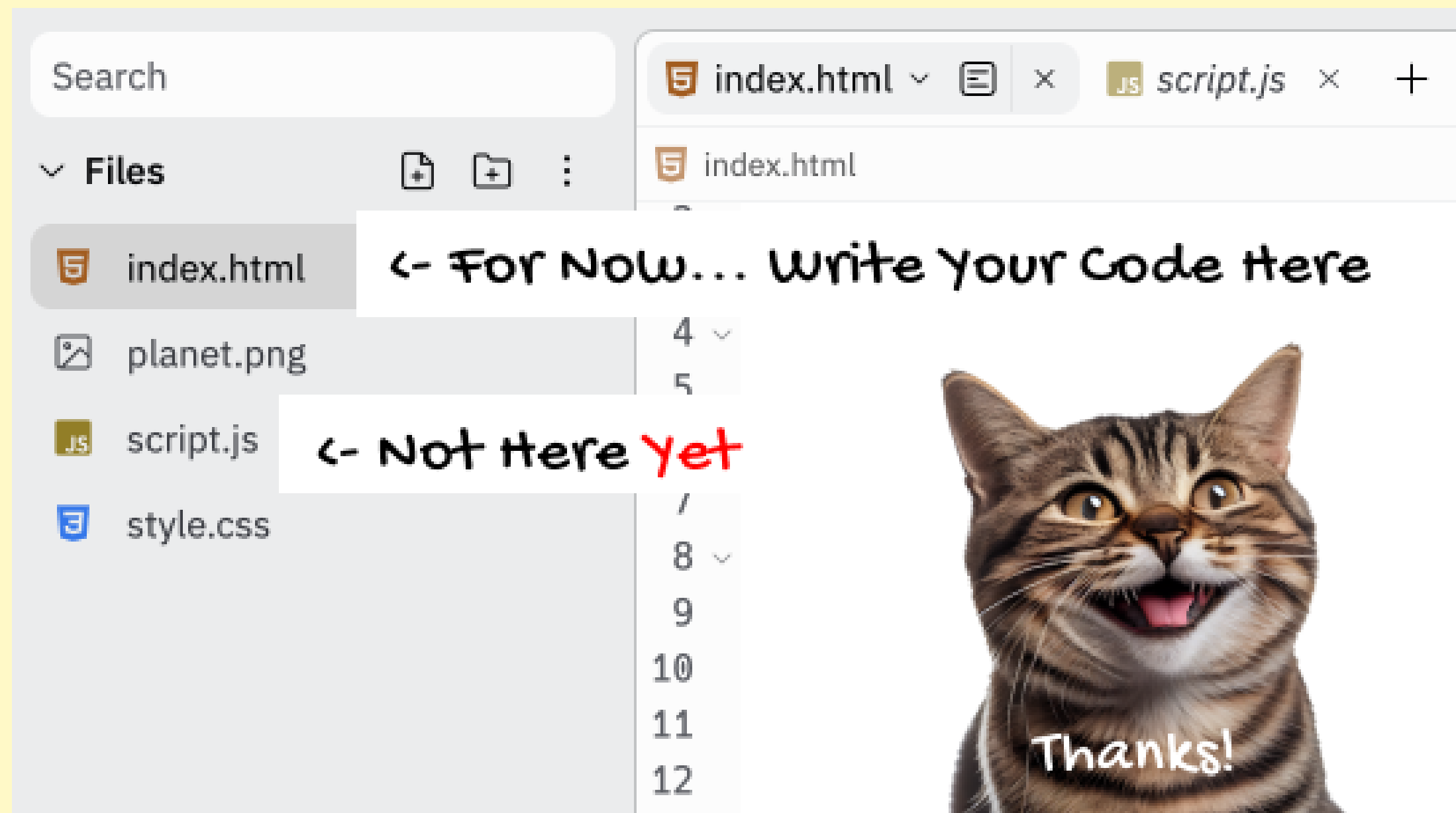
**You Can Add Anything
You Want in Your Top Bar
& Style It However You'd Like**

Here's an example:



**We need to keep up with time
within our application for
the top bar :D**

Let's start w/ a Script Tag



```
<html>
  <body>
    (site content)
    <script>
      (JavaScript Code)
    </script>
  </body>
</html>
```

Let's Get the Time

```
<script>  
    var currentTime = new Date().toLocaleString();  
</script>
```

Get The Time Text Element

```
<p id="timeElement"  
  style="(YOUR STYLES)">  
  Time  
</p>
```

Add an ID to the Element

```
<script>  
  var currentTime = new Date().toLocaleString();  
  var timeText = document.querySelector("#timeElement");  
</script>
```

& Select the Element by it's ID

Set The Time Once

```
<script>  
    var currentTime = new Date().toLocaleString();  
    var timeText = document.querySelector("#timeElement");  
    timeText.innerHTML = currentTime  
</script>
```

Set The Time Every Second

```
<script>

    function updateTime() {

        var currentTime = new Date().toLocaleString();

        var timeText = document.querySelector("#timeElement");

        timeText.innerHTML = currentTime;

    }

    setInterval(updateTime, 1000);

</script>
```

Great! We're done!

ThomasOS

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6/21/2023, 4:59:31 PM



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ThomasOS is a feature-limited OS to answer the unanswerable question of "who is Thomas?"

**Hope you enjoyed part 2.
See You Next Time :D**