

Try It! All HTML and CSS Course Exercises

Duke University

Programming Foundations with JavaScript, HTML and CSS

Module 2: Designing Web Pages with HTML and CSS

Try It! Create Your Codepen Account

Create your own Codepen account so that you can create web pages with HTML and CSS in this module.

1. Go to <http://codepen.io/>.
2. Click “Sign Up,” in the upper right hand of the Codepen’s landing page.
3. On the “Sign Up” page, scroll down past the paid plan options and click “Sign Up” under the “Free Plan” option.

The screenshot displays the CodePen 'Sign Up' page. It features three main columns for paid plans, each with a 'Sign Up' button at the bottom. Below these is a 'Free Plan' section with a 'Sign Up' button and a red arrow pointing to it with the text 'Sign up here'.

Plan	Monthly Price	Yearly Price	Key Features
Starter	\$9 / MONTH	\$75 / YEAR (Save \$33!)	Unlimited Private Pens, Live View, Asset Hosting (1 GB), Collab Mode (2 people), Professor Mode (10 students), 100 Send-to-Phone Messages, Unlimited Embed Themes w/ Custom CSS, Custom CSS on your Profile, Blog, and Blog posts.
Pro	\$30 / MONTH	\$300 / YEAR (Save \$60!)	Unlimited Private Pens, Live View, Asset Hosting (5 GB), Collab Mode (6 people), Professor Mode (35 students), 1,000 Send-to-Phone Messages, Unlimited Embed Themes w/ Custom CSS, Custom CSS on your Profile, Blog, and Blog posts.
Team	\$40 / MONTH	\$400 / YEAR (Save \$80!)	5 Team Members (dropdown), Shared billing, Give Pro accounts to up to 5 Team Members, Invite and change Team members at any time, Shared access to your 10 GB of Asset Hosting, A Team profile page, Shared editing access to Team-owned Pens, Create Team-owned Collections.
Free Plan	-	-	We also have a free plan. With the free plan you'll have a profile and become part of the CodePen community. You'll be able to save Pens so they are easy to find later. You can also write blog posts and create Collections.

4. Complete the signup form and click “Sign Up.”
5. You will then be prompted to complete a profile page. This is optional. Whether you decide to complete a profile or not, click “Save & Continue.”
6. You are now able to create web pages on Codepen! Click “New Pen” to start creating a new web page with HTML and CSS.

See you in the next video!

Try It! Build a “My Interests” Web Page

We hope you are excited to make your own web page on CodePen. Over the course of this week, you will create a “My Interests” web page, sharing information, images, and links about things you enjoy. At the end of the module, you will share your finished web page with your fellow classmates!

After you have created your account and watched our Using CodePen lecture, log in to <http://codepen.io> and click “New Pen” at the top of the page to get started.

Begin by giving your Pen a custom name at the top of the Pen, then follow the steps outlined below. Remember to frequently save your work! If you need help remembering how to write out the tags shown in the last video, visit our documentation page, linked in the **Resources** tab.

Add Sectional Elements and Paragraphs

Let’s begin to add some content to the body of your web page. Between your body tags:

- A. **Add at least 2 divs.** Remember that divs will later be used to style different parts of your web page differently (e.g., having different text font, color, or size, or a different background color for the web page content between the div tags).
- B. **Within each div:**
 - a. **Add at least one header.** Play around with different header sizes (e.g., h1, h2 ... h6).
 - b. **Add at least one paragraph.**
- C. **Need help?** Here’s an example page: <http://codepen.io/quentinre/pen/zKYLNw>. Learn from this example, but be sure to type out your own HTML! It’s the best way to learn.
 - a. **Get help in the forums!** Ask your questions and share your Pens in the course forums.

Metadata Tags

Because Codepen is a tool for creating websites, Codepen is already creating several metadata tags for you, including the html, head, title, and body tags. To see these metadata tags for your post, click **Export >> Export .zip** in the lower right hand corner of your Pen, as seen here.

The screenshot shows a CodePen project titled "Quentin's Interests" by Quentin Ruiz-Esparza. The editor has three tabs: HTML, CSS, and JS. The HTML tab is active, showing the following code:

```
1 <div>
2 <h1>Quentin's Page of
  Interests</h1>
3 <p>The world wants to know:
  who is Quentin Ruiz-Esparza?
  Read this page to learn about
  Quentin's likes (and maybe his
  dislikes)</p>
```

The preview shows the rendered page with the following content:

Quentin's Page of Interests

The world wants to know: who is Quentin Ruiz-Esparza? Read this page to learn about Quentin's likes (and maybe his dislikes)!

What's Your Top 5?

Quentin was recently asked about his top 5 movies, musicians, and places he has visited. Here are his answers!

Movies

Music Artists

A dialog box titled "Save as GitHub Gist" is open, showing the "Export .zip" button highlighted with a red box. Other options include "Save as GitHub Gist", "Embed Pen", and "Share".

Once you download the .zip file, Open the .html file inside the .zip file named "index" using a text editor like Brackets (<http://brackets.io/>). An example of the HTML export is below. Notice:

1. All HTML code is between `<html></html>` tags.
2. Your Pen name is included between the `<title></title>` tags.
3. All of the HTML you wrote for your web page are between the `<body></body>` tags.
4. If you were building an HTML web page without Codepen, you would need to write these metadata tags for yourself.

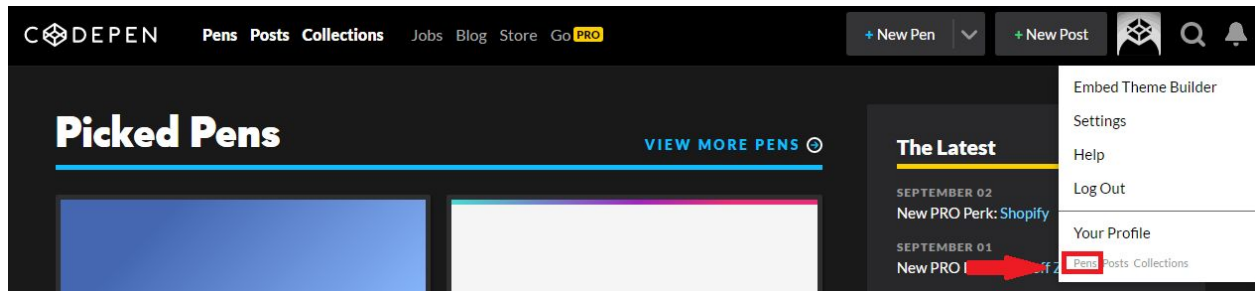
```
1 |<!DOCTYPE html>
2 |<html >
3 |  <head>
4 |    <meta charset="UTF-8">
5 |    <title>Quentin's Interests</title>
6 |
7 |
8 |
9 |
10 |
11 |
12 |
13 |
14 |  </head>
15 |
16 |  <body>
17 |
18 |    <div>
19 |      <h1>Quentin's Page of Interests</h1>
20 |      <p>The world wants to know: who is Quentin Ruiz-Esparza? Read this page
21 |      to learn about Quentin's likes (and maybe his dislikes)!</p>
22 |    </div>
23 |    <div>
24 |      <h2>What's Your Top 5?</h2>
25 |      <p>Quentin was recently asked about his top 5 movies, musicians, and
26 |      places he has visited. Here are his answers!</p>
27 |      <h3>Movies</h3>
28 |      <h3>Music Artists</h3>
29 |      <h3>Places I've Visited</h3>
30 |    </div>
31 |
32 |
33 |
34 |  </body>
35 |</html>
```

1, Column 1 — 36 Lines INS HTML ▼ ● Spaces: 4

See you in the next video!

Try It! Format Text

Continue building your “My Interests” web page on Codepen (<http://codepen.io/>). Click your avatar icon at the top of the website and select “Pens” to find your web page you already started building.



1. **Make some text bold.**
2. **Emphasize some text.**
3. **Experiment with nesting tags.**

Need help? Be sure to reference our documentation page for HTML:
<http://www.dukelearntoprogram.com/course1/doc/#basichtml>.

Try It! Add Links and Images

Add Links

Add some links to your “My Interests” page, linking to other web pages related to some of your interests.

Note: In order to format links so that they open in a new window / tab, write your <a> tags in the following way:

```
<a href="http://www.dukelearntoprogram.com/" target="_blank">Duke Learn to Program</a>
```

Add Images

Next, add images to your "My Interests" page. Consider adding images that represent items you added to your original page. You should use what you know about the tag in HTML (see our documentation page for a refresher: <http://www.dukelearntoprogram.com/course1/doc/#basichtml>). You can use your own images or find some images online. Wikimedia Commons (https://commons.wikimedia.org/wiki/Main_Page) and Pixabay (<https://pixabay.com>) are two great resources, but there are many, many more!

You will need to host your images somewhere online. Learners have suggested the following image hosting sites for this course:

- <https://www.flickr.com/>
- <http://postimage.org/>
- <http://photobucket.com/>

- <https://www.dropbox.com/>
- <https://www.base64-image.de/>
- <http://tinypic.com/>

Extra Challenge!

Experiment with changing the width of one of your images on your web page, as shown in the Adding Images and Links video.

Try It! Create Lists and Tables

Once again, refer to our documentation page to remind yourself about different kinds of HTML tags: <http://www.dukelearntoprogram.com/course1/doc/#lists>.

Create Lists

Add an ordered list to your “My Interests” page. For example, you could rank your top five favorite foods, books, movies, etc.

Also add an unordered list. For example, list several places you would like to visit, jobs you would like to have, people you would like to meet, etc.

Make a Table

Next, create a table, complete with at least two rows, including one header row. Use the table’s cells to organize text, images, or links for your web page.

Extra Challenge!

Try nesting one list inside another list, or add a list inside one (or several) of your table’s cells.

Try It! Style Your Web Page with CSS [after video 2.2.20]

Open up your “My Interests” web page on CodePen and begin to style your page using the CSS editor.

1. **Use CSS to style at least 1-2 HTML elements** (paragraphs, headings, images etc.).
2. **Add IDs or classes to at least 2-3 HTML elements.**
3. **Use CSS to style your IDs or classes.**

Note that you can place many HTML elements inside `<div></div>` tags and then use CSS to style everything between the div tags in the same way, for example: using the same background color or font size.

Need help?

- **Refer back to our documentation page** for some basic example CSS styling properties: <http://www.dukelearntoprogram.com/course1/doc/#css>.
- **Look at this example “My Interests” page:** <http://codepen.io/quentinre/pen/pEqgBK>. This example uses some CSS properties not listed on DukeLearnToProgram.com.
- **Explore W3Schools** (<http://www.w3schools.com/css/default.asp>) to better understand how these properties work and learn more CSS!
- **Here are 140 color names you can use to color your page:** http://www.w3schools.com/cssref/css_colors.asp.
- Keep it simple and focus on the basics you learned in the videos!

Try It! Customize Your Web Page’s Colors

Feel free to better customize the colors of your “My Interests” web page by using a color picker (like this one:

https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Colors/Color_picker_tool) and copying the six hexadecimal digits for a color to use in your web page.

[Discussion Prompt] Share your “My Interests” Web Page

Let your fellow classmates learn a little about yourself by sharing your “My Interests” web page here in this discussion forum thread.

Also, after you share a link to your page, feel free to explore your fellow students’ pages, learning about their interests and getting other ideas for how to structure and style a web page with HTML and CSS.