



運用不同工具教授開發互聯網應用及Web 應用程序工作坊

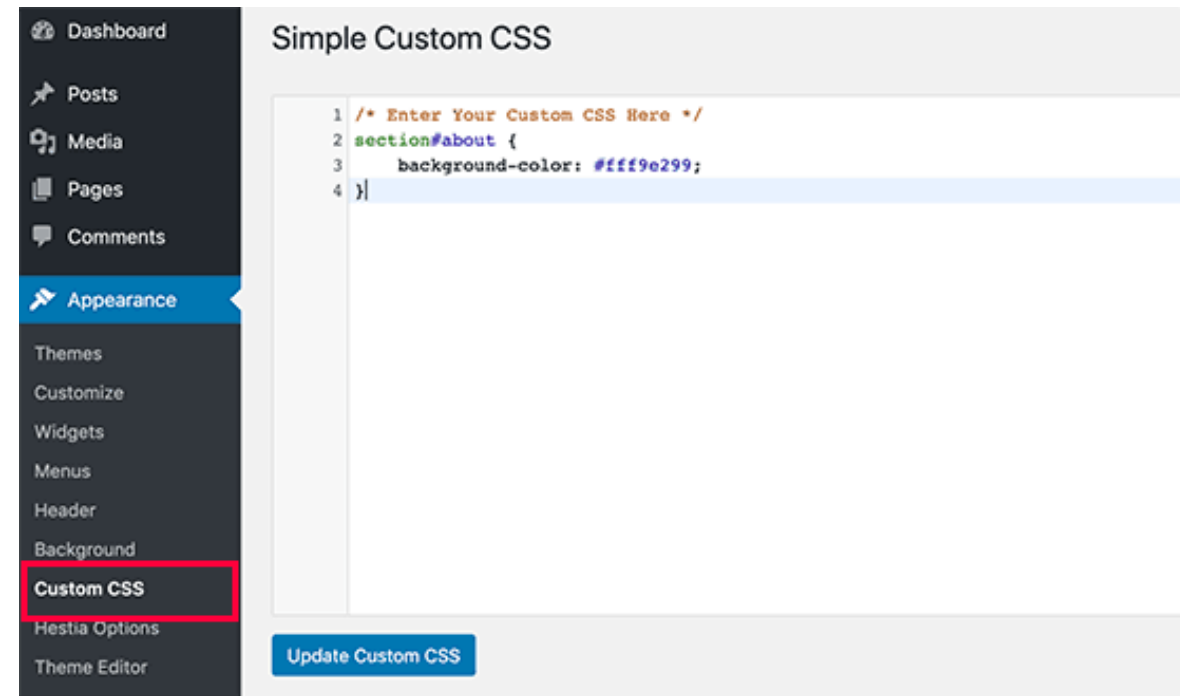
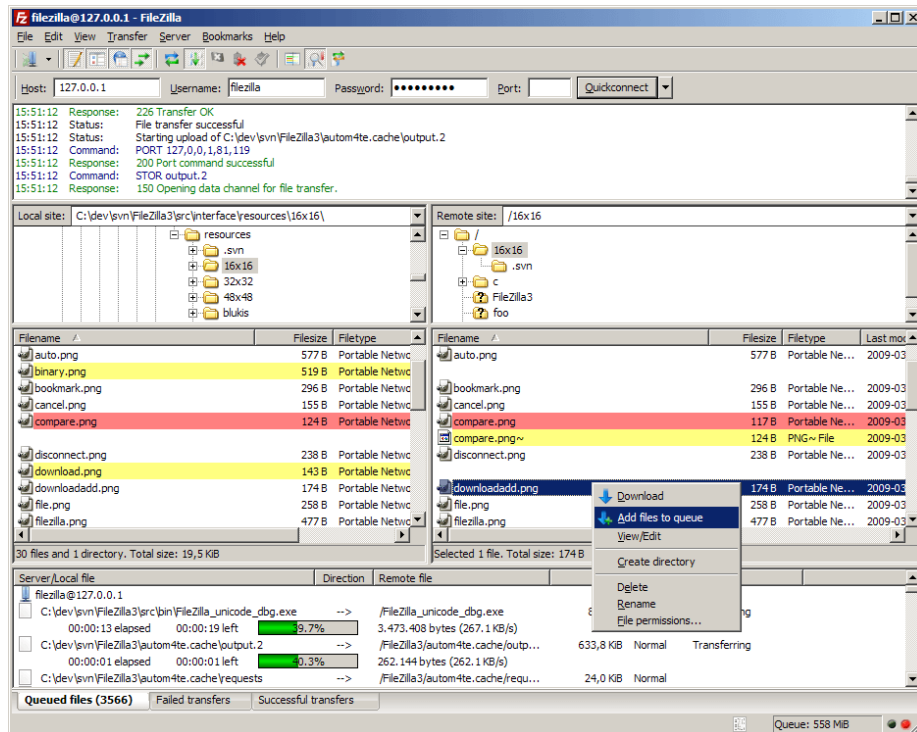
Mr. Ng Tsz Kit

Computer teacher

Hong Kong Chinese Women's Club College

Some of my experience

- Wix
- HTML, CSS, FTP
- Wordpress (schools, faculty)

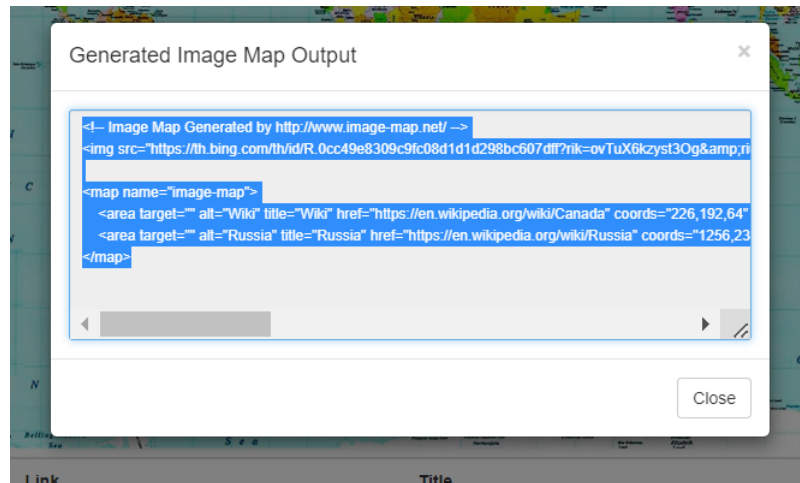


Teaching tools

- Image map generator
- Regular expression (format check)
- Code.org (HTML and CSS)
- Other effects: rotation, ratio

Image Map Generator


- <https://www.image-map.net/>
- Load image from website.
- Search “Google Map”.
- Copy an image link.
- Add two shapes to identify the targets.
- Click “Show Me The Code!”



How Does it Work?

With the help of our generator creating html imagemaps is free and easy. Simply start by selecting an image from your pc, or load one directly from an external website. Next up create your hot areas using either rectangle, circle or polygon shapes. Creating these shapes is as easy as pointing and clicking on your image. Don't forget to enter a link, title and target for each of them. Then once you're finished simply click Show Me The Code!

Select Image from My PC -- OR -- Load Image from Website



Active	Shape	Link	Title	Target
<input type="checkbox"/>	Circle	https://en.wikipedia.org/wiki/Canada	Wiki	--
<input checked="" type="checkbox"/>	Rect	https://en.wikipedia.org/wiki/Russia	Russia	--

+ Add New Area

Show Me The Code!

w3schools

https://www.w3schools.com/html/tryit.asp?filename=tryhtml_intro

- Paste the codes there:
- Click Canada and HK to view their wiki pages

Home HTML HTML Introduction Tryit: HTML introduction

Run >

Result Size: 625 x 423 Get your own website


```
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>
<!-- Image Map Generated by http://www.image-map.net/ -->


<map name="image-map">
  <area target="" alt="Wiki" title="Wiki" href="https://en.wikipedia.org/wiki/Canada" coords="226,192,64" shape="circle">
  <area target="" alt="Russia" title="Russia" href="https://en.wikipedia.org/wiki/Russia" coords="1256,233,939,153" shape="rect">
</map>
```

My First Heading

My first paragraph.



Regular expression (email format check)

<https://regex-generator.olafneumann.org/>



1 **Paste a text sample.**

abc@gmail.com

Give us an example of the text you want to match using your *regex*. We will provide you with some ideas how to build a regular expression.

2 **Which parts of the text are interesting for you?**

abc@gmail.com

Click on the marked suggestions to select them for your regular expression.

3 **Regular expression**

[a-zA-Z]+@[a-zA-Z]+\.[a-zA-Z]+

Hover the generated regular expression to see more information.

[Copy regex](#)

- Generate only patterns**
When this option is checked, the generated regular expression will only contain the patterns that you :
- Match whole line**
Would you like the generated regular expression to match all of the input?

Regex101 <https://regex101.com/>

Check if the strings match the RE format.

The screenshot displays the Regex101 website interface. On the left, there is a sidebar with a 'SAVE & SHARE' section containing a 'Save Regex' button with a keyboard shortcut 'ctrl+s'. Below this is a 'FLAVOR' section with a help icon and a list of programming languages: PCRE2 (PHP >=...), PCRE (PHP <7.3), ECMAScript (JavaSc...), Python, Golang, Java 8, and .NET (C#). The main area is divided into three horizontal panels. The top panel, 'REGULAR EXPRESSION', shows the regex `[a-zA-Z]+@[a-zA-Z]+\.[a-zA-Z]+` with flags `/gm` and a status bar indicating '2 matches (26 steps, 0.2ms)'. The middle panel, 'TEST STRING', contains four email addresses: 'Red@example.com', 'Pink.com', 'Green@company.net', and 'Blue@example.com'. The first and third addresses are highlighted in blue. The bottom panel, 'EXPLANATION', is currently collapsed. Below it, a 'MATCH INFORMATION' section is expanded, showing two matches: 'Match 1' with indices 0-15 and the string 'Red@example.com', and 'Match 2' with indices 25-42 and the string 'Green@company.net'. A 'QUICK REFERENCE' section is also visible at the bottom right.

SAVE & SHARE

Save Regex `ctrl+s`

FLAVOR

- </> PCRE2 (PHP >=... ✓
- </> PCRE (PHP <7.3)
- </> ECMAScript (JavaSc...
- </> Python
- </> Golang
- </> Java 8
- </> .NET (C#)

REGULAR EXPRESSION 2 matches (26 steps, 0.2ms)

```
:/ [a-zA-Z]+@[a-zA-Z]+\.[a-zA-Z]+ /gm
```

TEST STRING

```
Red@example.com  
Pink.com  
Green@company.net  
Blue@example.com
```

EXPLANATION

MATCH INFORMATION

Match 1	0-15	Red@example.com
Match 2	25-42	Green@company.net

QUICK REFERENCE

Debugger

The image shows the Visual Studio interface with the Regex Debugger tool open. On the left sidebar, the 'TOOLS' section is expanded, and 'Regex Debugger' is highlighted with a red rectangular box. The main window of the Regex Debugger is titled 'Regex Debugger' and contains the following information:

- MATCH**:
 - Match 1 found in 6 step(s) ✓
 - Match 2 found in 23 step(s)
 - Match 3 failed in 34 step(s)
- MATCH STEPS**: A progress bar with 6 steps. Step 1 is selected and highlighted with a blue dot. Navigation buttons (back, forward, play, stop) are visible below the bar.
- MATCH STEP 1**:
 - Regex: `/[a-zA-Z]+@[a-zA-Z]+\.[a-zA-Z]+/gm`
 - Matched text:
 - Red@example.com
 - Pink.com
 - Green@company.net
 - Blue@example

Available keyboard shortcuts

https://www.w3schools.com/php/hptryit.asp?filename=tryphp_intro

W3schools

- Need to use “w3school php”; don’t use “w3school HTML”

```
<!DOCTYPE html>
<html>
<body>

<?php
$re = '/[a-zA-Z]+@[a-zA-Z]+\.[a-zA-Z]+/m';
$str = 'Red@example.com
Pink.com
Green@company.net
Blue@example
';

preg_match_all($re, $str, $matches, PREG_SET_ORDER, 0);

// Print the entire match result
var_dump($matches);

?>

</body>
</html>
```

```
array(2) { [0]=> array(1) { [0]=> string(15) "Red@example.com" } [1]=> array(1) { [0]=>
string(17) "Green@company.net" } }
```

Video: Intro to CSS - Part 1

Questions to Consider

- How is the style of a web page different from structure?
- Why might you want your web page to have a certain style?



```
h2 {
  color: blue;
  font-family: cursive;
}
```

In this example, `h2` is the selector, `color` and `font-family` are properties, and `blue` and `cursive` are the values for those properties.

Code.org CSS activities

Instructions Help & Tips

This HTML file uses a style sheet ("style.css") to give the page a particular style. The style sheet contains information about what each of the HTML elements should look like.

Do this

- Find the code in the style sheet (click on "style.css" in the files list) that is making the h1 heading red.
- Change the code for the color of the h1 heading from `red` to a different color.

+ Add HTML

+ Add CSS

+ Add Image

Version History

OMB of 20MB used



Inspector: Off

Refresh and Save



index.html

style.css

```
1 h1 {
2   color: red;
3   font-size: 24px;
4 }
5
6 p {
7   font-size: 14px;
8 }
```

Odd World Records

Most M&Ms Eaten Blindfolded, with a Chopstick in 1 Minute

The most M&Ms eaten in one minute blindfolded is 20 and was achieved by Ashrita Furman (USA), at the Sri Chimmoy Centre in New York, New York, USA, on 8 December 2011.

Finish

Code.org CSS activities

▼ Lesson 6: Styling Text with CSS

Question of the Day: How can we change the style of text on a web page?

This lesson introduces CSS as a way to style elements on the page. Students learn the basic syntax for CSS rule-sets and then explore properties that impact HTML text elements. They work on a HTML page about Guinness World Record holders, adding their own style to the provided page.

- 1 Sample Website
- 2 Exploration
- 3 Video: Intro to CSS - Part 1
- 4-6 Skill Building
- 4 5 6
- 7 Video: Intro to CSS - Part 2
- 8 Skill Building
- 9 Practice

View Lesson Plan

Student Resources

Send to students

<https://studio.code.org/s/csd2-2021>

CSS and Text Color

This HTML file uses a style sheet ("style.css") to give the page a particular style. The style sheet contains information about what each of the HTML elements should look like.

Do this

- Find the code in the style sheet (click on "style.css" in the files list) that is making the h1 heading red.
- Change the code for the color of the h1 heading from `red` to a different color.

- ▶ What colors can I use in CSS?
- ▶ How does the code work?
- ▶ Why do I need all the punctuation?
- ▼ What is a style sheet?

A style sheet is a document that controls how a web page will appear. External sheets are separate files that are linked to the HTML page.

- ▶ What is CSS?

- index.html
- # style.css

```
1 h1 {
2   color: red;
3   font-size: 24px;
4 }
5
6 p {
7   font-size: 14px;
8 }
```

Odd World Records

Most M&Ms Eaten Blindfolded, with a Chopstick in 1 Minute

The most M&Ms eaten in one minute blindfolded is 20 and was achieved by Ashrita Furman (USA), at the Sri New York, USA, on 8 December 2011.

Largest Bubble Blown

Chad Fell (USA) blew a bubblegum bubble with a diameter of 50.8 cm (20 in) without using his hands at the Doubt Winston County, Alabama, USA on 24 April 2004. The secret of his success, says Chad, is blowing with three pieces

Hula Hoop Marathon

The longest hula hooping marathon by an individual using a single hoop is 74 hours and 54 minutes and was achieved by Aaron Fink (USA) in Columbus, Ohio, USA on 22-25 October 2009. Aaron had his own news segment on Fox News 28 after the attempt through the impressive feat and he secured the record after no one had beaten it for 25 years.

Challenges and Extra Code

There are lots of different ways to style text. Use the challenges below to get new ideas for your web page.

[Back](#)[Finish](#)

Choose from the following activities:

Animal Farm

Friday, 4pm in the Auditorium

Come see our production of *Animal Farm* in the auditorium at 4pm this Friday. It's going to be a great show, and you will not regret it!

a

Extra Code: Font Family

Learn to use different font styles.

How to make boba

Do you enjoy delicious boba tea?

Did you know you can make boba at home?

Making boba is easy. I always get the quick style that you can boil in just a few minutes.

Important!!!!

These instructions are for the quick style boba. If you get the regular boba, they WILL NOT WORK!

Step 1

b

Extra Code: Underlining

Put lines under, over, or through your text.

Build a Terrarium!

What's a terrarium?

A terrarium is usually a sealable glass container containing soil and plants, and can be opened for maintenance to access the plants inside.

From Wikipedia

How do they work?

The glass lets the light in, but it also keeps the water inside so there can be a water cycle. That way your plants get all the sun they need but never lose any water!

How can I make one?

c

Extra Code: Align text

Align text to the right or center of the page.

Orchids!

A Basic Guide to Help Your Orchid Thrive

How Much Light?

It's hard to know whether orchids need more light or a little less. They are very light sensitive and can be killed by too much light. To give your orchid light, you can use a grow light or place it in a sunny window.

Watering Orchids

Watering orchids is probably the most common mistake. Orchids are very sensitive to overwatering and will die if they are kept too wet. The soil should be kept moist but not soggy. If you are unsure, it's better to water less often than too often. If you are unsure, it's better to water less often than too often.

Should I Fertilize?

If you want to make your orchid thrive, you need to fertilize it. Fertilizer will help your orchid grow and bloom. Use a balanced fertilizer and follow the instructions on the label.

d

Extra Code: Letter Spacing

Space letters further out and closer to each other.

Stradivarius Violins

Why Are They So Expensive?

Read more about why these violins are so expensive and why they are so hard to come by. The video also shows how they are made.

See More

A Stradivarius violin is a violin that was made by Antonio Stradivari, an Italian violin maker who lived in Cremona, Italy, from 1644 to 1737. His violins are considered to be among the best ever made and are highly valued for their sound and appearance.

Is It Even Worth It?

The price of a Stradivarius violin can range from \$1 million to over \$10 million. While some people believe that these violins are worth the price, others argue that they are overpriced and that there are many other violins that sound just as good for a fraction of the cost.

Is Why?

e

Extra Code: Text Shadow

Learn how to give your text a shadow

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     </head>
5   <body>
6
7     </body>
8 </html>
```

f

Free Play

Make a web page using the new code.

Layout and Style

- Look through web page below for new styles.
- Open the style sheet
- With your partner, discuss which parts of the CSS code you think are making the page appear different.
 - What makes the entire page blue?
 - How are the images positioned to the left of all the other elements?

In the next few levels, you'll be changing and adding new styles on this page.

- ▶ What does the body selector do?
- ▶ What does the border-style property do?
- ▶ What does the border-radius property do?
- ▶ What does the float property do?

brigadeiro.jpg

index.html

pie.jpg

rasmalai.jpg

style.css

tangyuan.jpg

```
1 body {  
2   background-color: lightblue;  
3 }  
4  
5 h1 {  
6   font-family: sans-serif;  
7 }  
8  
9 h2 {  
10  font-family: sans-serif;  
11 }  
12  
13 img {  
14   float: left;  
15   width: 250px;  
16   margin: 10px;  
17   border-color: saddlebrown;  
18   border-width: 4px;  
19   border-style: solid;  
20   border-radius: 10px;  
21 }  
22
```

Desserts of the World



Ras Malai

Origin: West Bengal

Ras malai is made from a sweet, soft cheesy dumpling that is cooked in sweet milk and spices. You can make the dumpling yourself from milk and semolina, or you can buy them in the store to cook at home.

(picture from Shaharbano on Wikimedia Commons - CC BY-SA 4.0)



Banoffee Pie

Origin: United Kingdom

Banoffee pie is a pie with caramel, bananas, and cream. You can make the caramel by boiling a can of condensed milk. The name comes from a

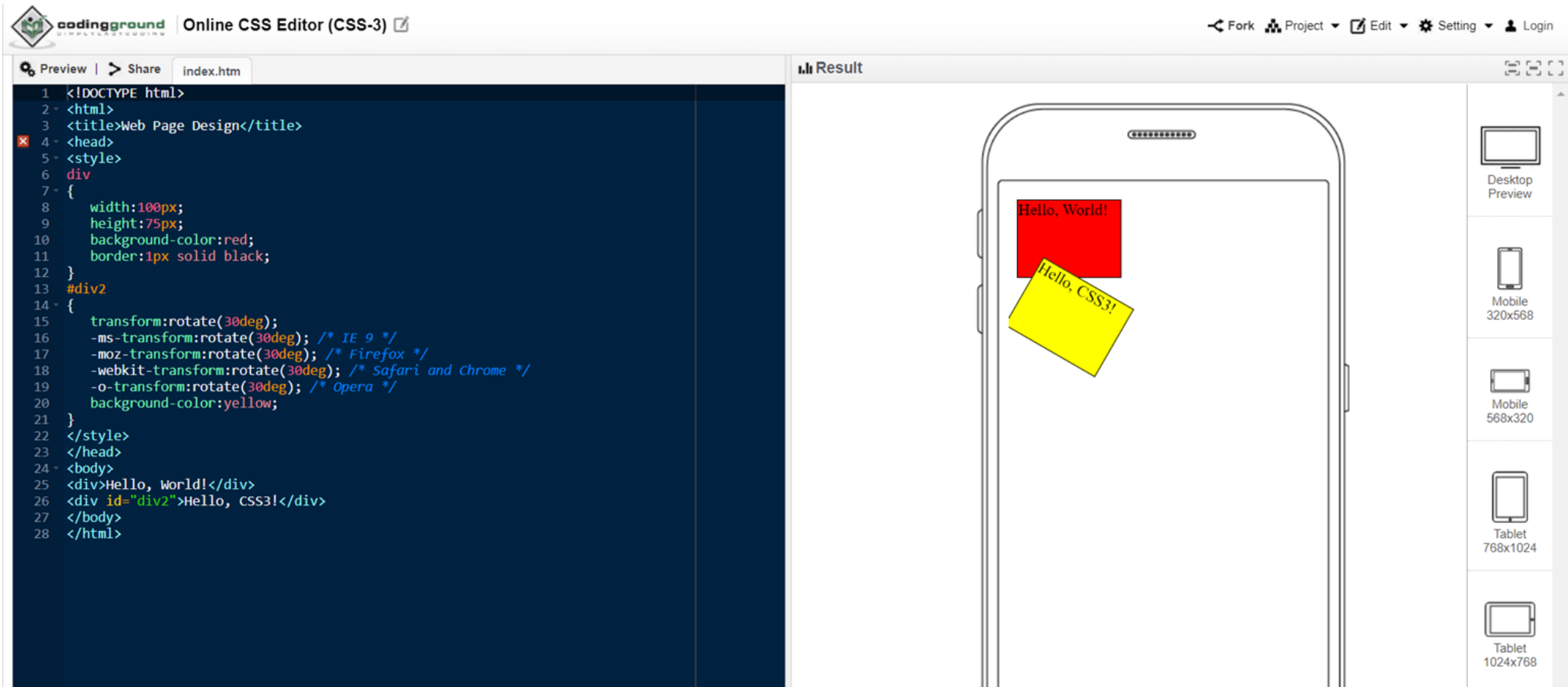
- 📷 brigadeiro.jpg
- ✎ index.html
- 📷 pie.jpg
- 📷 rasmalai.jpg
- # style.css
- 📷 tangyuan.jpg

```
6     font-family: sans-serif;
7 }
8
9 h2 {
10 font-family: sans-serif;
11 }
12
13 img {
14     float: left;
15     width: 250px;
16     margin: 10px;
17     border-color: saddlebrown;
```

The color picker interface includes a large square gradient from orange to dark brown, a vertical rainbow color bar, a vertical checkerboard pattern bar, and a selected color swatch of saddlebrown. The text 'lightblue' and 'saddlebrown' are visible next to their respective swatches.

saddlebrown

Rotation effect



The image shows a screenshot of the CodingGround Online CSS Editor (CSS-3). The editor is split into two main sections: a code editor on the left and a preview window on the right.

Code Editor: The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <title>Web Page Design</title>
4 <head>
5 <style>
6 div
7 {
8   width:100px;
9   height:75px;
10  background-color:red;
11  border:1px solid black;
12 }
13 #div2
14 {
15   transform:rotate(30deg);
16   -ms-transform:rotate(30deg); /* IE 9 */
17   -moz-transform:rotate(30deg); /* Firefox */
18   -webkit-transform:rotate(30deg); /* Safari and Chrome */
19   -o-transform:rotate(30deg); /* Opera */
20   background-color:yellow;
21 }
22 </style>
23 </head>
24 <body>
25 <div>Hello, World!</div>
26 <div id="div2">Hello, CSS3!</div>
27 </body>
28 </html>
```

Preview Window: The preview shows a mobile phone outline. Inside the phone, there are two rectangular boxes. The first is a red box with the text "Hello, World!". The second is a yellow box with the text "Hello, CSS3!". The yellow box is rotated 30 degrees clockwise, demonstrating the CSS rotation effect. On the right side of the preview window, there are icons for different device views: Desktop Preview, Mobile 320x568, Mobile 568x320, Tablet 768x1024, and Tablet 1024x768.

https://www.tutorialspoint.com/online_css_editor.php

Set ratio

The image shows a web browser interface with two main panels. The left panel displays the source code for an HTML document, and the right panel shows a responsive design preview.

Code Panel (Left):

```
46 padding: 20px 0;  
47 text-align: center;  
48 }  
49 section {  
50 float: left;  
51 width: 63.197026%;  
52 }  
53 aside {  
54 float: right;  
55 width: 29.3680297%;  
56 }  
57 </style>  
58 </head>  
59 <body>  
60 <h1>100% Wide Container</h1>  
61 <div class = "container">  
62 <section>Section</section>  
63 <aside>Aside</aside>  
64 </div>  
65 <h1>75% Wide Container</h1>  
66 <div class = "container container-75">  
67 <section>Section</section>  
68 <aside>Aside</aside>  
69 </div>  
70 <h1>50% Wide Container</h1>  
71 <div class = "container container-50">  
72 <section>Section</section>  
73 <aside>Aside</aside>  
74 </div>  
75 <h1>50% Wide Container</h1>  
76 <div class = "container container-50">  
77 <section>Section</section>  
78 <aside>Aside</aside>  
79 </div>  
80 </body>  
81 </html>
```

Preview Panel (Right):

The preview panel shows a mobile device outline with three different container widths:

- 100% Wide Container:** The "Section" and "Aside" elements are side-by-side, each taking up approximately 63% and 29% of the container width respectively.
- 75% Wide Container:** The "Section" and "Aside" elements are side-by-side, each taking up approximately 63% and 29% of the container width respectively.
- 50% Wide Container:** The "Section" and "Aside" elements are side-by-side, each taking up approximately 63% and 29% of the container width respectively.

On the far right, there is a vertical toolbar with icons for different device sizes:

- Desktop Preview
- Mobile 320x568
- Mobile 568x320
- Tablet 768x1024
- Tablet 1024x768

https://www.tutorialspoint.com/css/css_responsive.htm