



**CAMPS**

**BROWSE & BUILD**

# Expectations



# CAMP GOALS

- Campers will learn about basic browser components.
- Campers will design and develop their own website with HTML, CSS, and JavaScript.
- Campers will learn how to use CSS and JavaScript to make animations in their browser.



# MONDAY



**Today we will...**

- **Make a CodePen Account**
- **Learn some HTML**
- **Make our own website!**



CODE NINJAS CAMPS

“I’m good at....”

Say your name &  
something that you’re  
good at!



# Let's talk about browsers...





 CODE NINJAS CAMPS

# What is HTML?

**HTML** stands for Hypertext Markup Language

**HTML** will tell your browser how to structure your website and which elements should be displayed.



# So how does a web browser work?



**Step 1:** A programmer provides HTML to a *server* (a computer that sends information to other computers).

**Step 2:** The browser finds the HTML in the server and reads it.

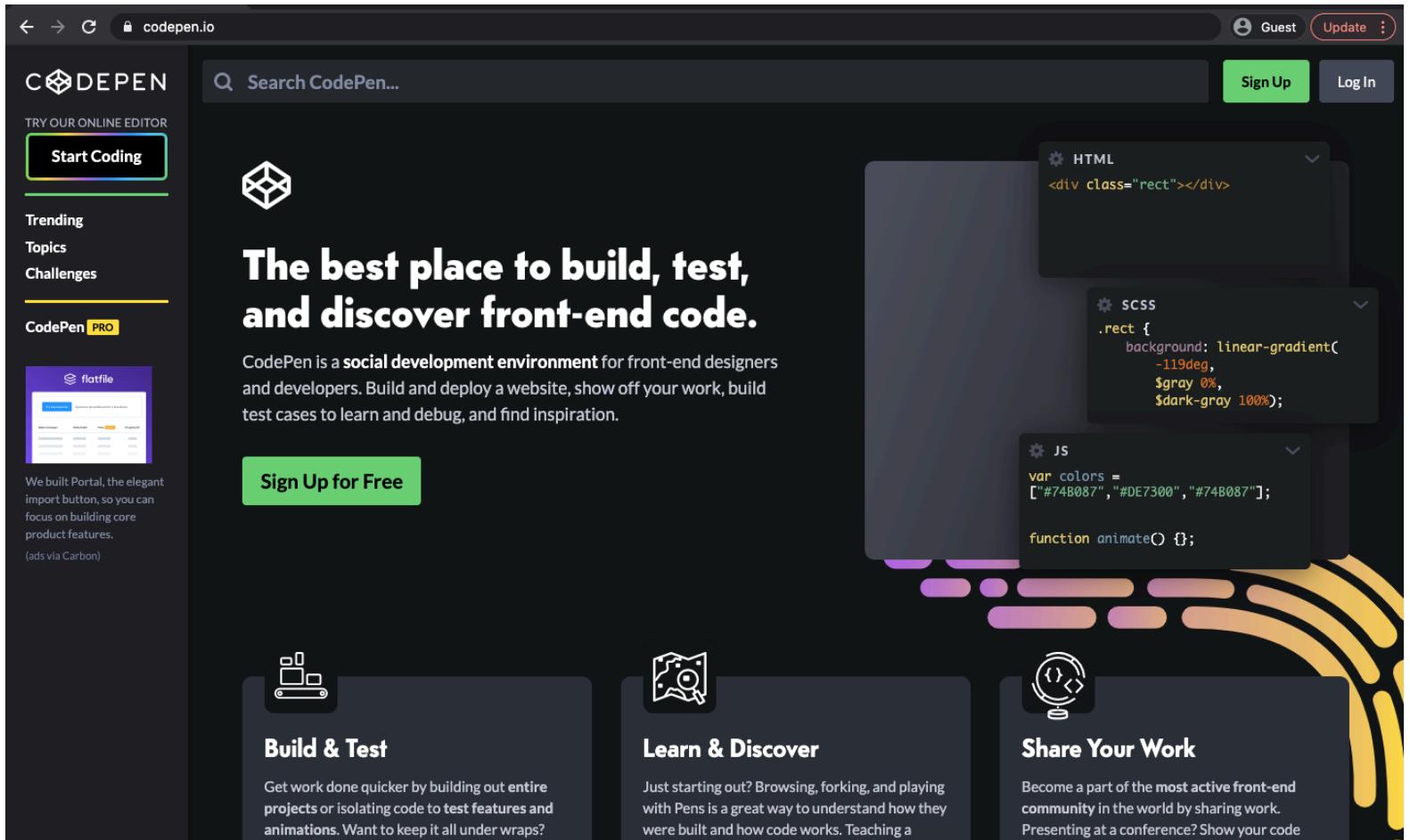
**Step 3:** The browser displays the HTML onto the page for the viewer.



# Let's make a CodePen account!



# codepen.io

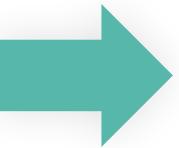


The screenshot shows the homepage of codepen.io. At the top, there's a navigation bar with a lock icon, the URL "codepen.io", a guest sign-in button, and an "Update" link. Below the header is a search bar with the placeholder "Search CodePen...". To the right of the search bar are "Sign Up" and "Log In" buttons. On the left side of the page is a sidebar with the "CODEPEN" logo, a "Start Coding" button, and links for "Trending", "Topics", and "Challenges". There's also a "CodePen PRO" section featuring a "flatfile" button. A note below the sidebar says: "We built Portal, the elegant import button, so you can focus on building core product features. (ads via Carbon)". The main content area has a large "TRY OUR ONLINE EDITOR" heading with a "Start Coding" button. Below this is a section with the text: "The best place to build, test, and discover front-end code." followed by a description of what CodePen is: "CodePen is a social development environment for front-end designers and developers. Build and deploy a website, show off your work, build test cases to learn and debug, and find inspiration." There's a "Sign Up for Free" button. At the bottom of the page are three cards: "Build & Test" (with a build icon), "Learn & Discover" (with a camera icon), and "Share Your Work" (with a globe icon). Each card has a brief description and a "Read More" link.





Sign Up



Sign Up with Email



Save

TOUR

# The Pen Editor

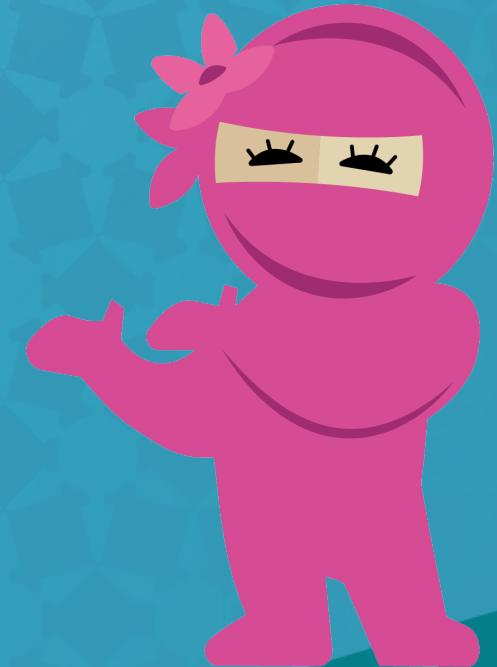
To help you get started using the CodePen Editor, we'll start creating an example Pen (a "Pen" is what we call a demo you create in the Editor). We'll show you how to do things like add code and see the preview, change settings, and change the layout. Ready?

⌚ It's about a 2 minute thing.

Let's go!



# BREAK TIME





# Let's make our own website!



# Your Task

*We will be developing a website to tell your fellow campers a little more about yourself.*

**Your website will include:**

Your name, age, favorite movie & favorite color





# Before we get started...



# HTML Syntax

<h1>

Hi! My name is [...] </h1>

*opening tag*



# HTML Syntax

<**h1**>

*element name*



# HTML Syntax

```
<h1> Hi! My name is [...] </h1>
```

*content that will be displayed*



# HTML Syntax

`<h1>` Hi! My name is [...]

`</h1>`

*closing tag*



# HTML Syntax

```
< /h1 >
```

*all closing tags must  
include a backslash!*



# HTML Syntax

<ul>

*ul = unordered list*

*will display a bulleted list*



# HTML Syntax

`<li> I am [...] years old.</li>`

*li = list item*

*each <li> will create a new  
bullet point*



# Here's what we've done so far:

```
<h1> Hi! My name is [...] </h1>
```

```
<ul>
```

```
  <li>I am [...] years old. </li>
```

```
  <li>My favorite movie is [...] </li>
```

```
</ul>
```



Your website should look like this:

**Hi! My name is [...]**

- I am [...] years old.
- My favorite movie is [...]



# HTML Syntax

`<p> I am good at [...] <p>`

*p = paragraph*



# HTML Syntax

`<div> </div>`

*div = divider*

*A div is a container for HTML elements  
that will help us with our styling later.*



# HTML Syntax

`<p> My favorite animal is [...]<p>`

*p = paragraph*



# HTML Syntax

```
<img src = “[...]" alt = "[...]" />
```

*img = image*



# HTML Syntax

```
<img src = “[...]" alt = "[...]">
```

*src = source link*

*This tells the browser where it can find the image.*



# HTML Syntax

```
<img src = “[...]" alt = “favAnimal”/>
```

*alt = alternate*

*If the image cannot be displayed, the text placed here will be displayed instead.*



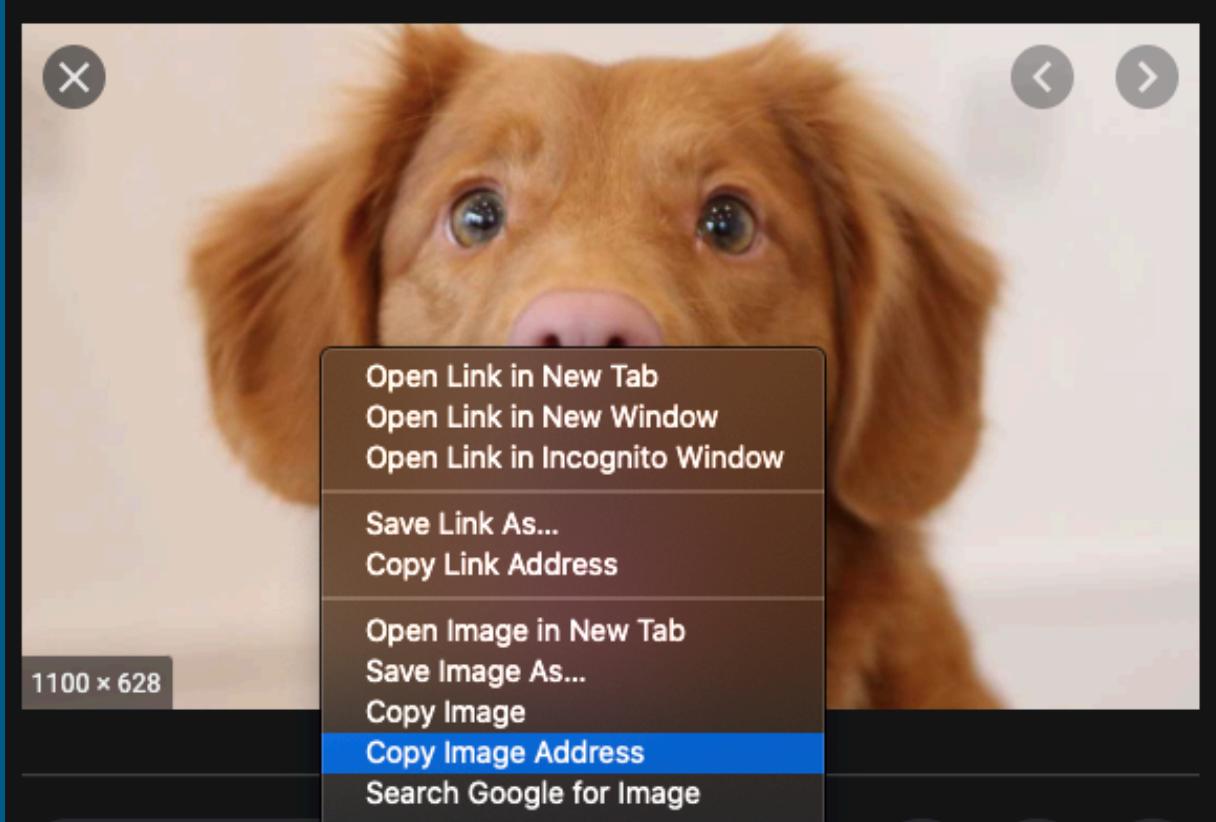
# HTML Syntax

```
<img src = “[...].” alt = “favAnimal”/>
```

*So what goes here?*  
→



# HTML Syntax



**Step 1:** Find the image that you want to display on your website.

**Step 2:** Right click on the image and copy the image address.

**Step 3:** Paste the address as your source link.



# Here's what we've done so far:

```
<p>I am good at [...]</p>
```

```
<div>
```

```
    <p>My favorite animal is [...]</p>
```

```
    <img src = “[...]" alt = “favAnimal”/>
```

```
</div>
```



# Your website should look like this:

**Hi! My name is [...]**

- I am [...] years old.
- My favorite movie is [...]

I am good at [...]

My favorite animal is [...]





# Classes vs. IDs



**Classes and IDs are used to identify elements for styling and JavaScript.**



An ID is used to reference a single element.

A class is used to reference a collection of elements.



# Let's revisit some of our code:

```
<p id = “goodAt”>I am good at [...]</p>
<div>
    <p>My favorite animal is [...]</p>
    <img src = “[...]" alt = “favAnimal”/>
</div>
```





# BREAK TIME





# What did we learn today?

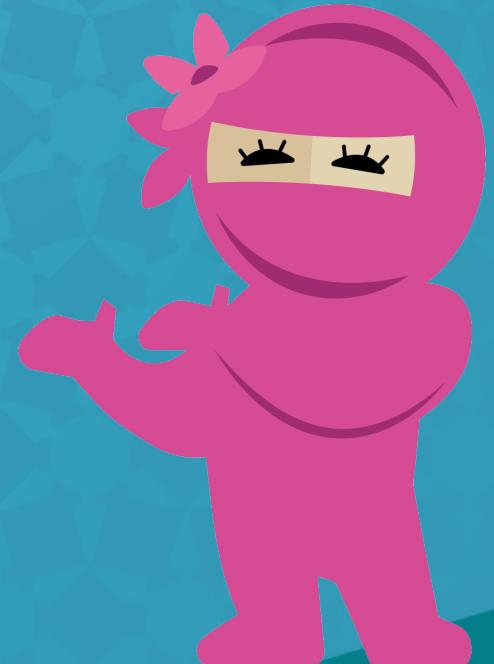
*2 Truths and a Lie*





## Example:

- 1. *HTML stands for Hypertext Markup Language.***
- 2. *All elements require a closing tag.***
- 3. *UL stands for unordered list.***





## Example:

- 1. HTML stands for Hypertext Markup Language.**
- 2. All elements require a closing tag.**
- 3. UL stands for unordered list.**



# TUESDAY



**Today we will...**

- Add CSS to our About Me Website
- Make a button change colors

# Hangman

Guess the phrase that  
your fellow camper came  
up with.



# Review

*The Hot Seat*



# What is CSS?

**CSS** stands for Cascading Style Sheets

**CSS** will tell your browser how to style your website's elements.



# What is CSS?

**CSS** is made up of *properties*.

A *property* defines a certain style for an HTML element.



# What is CSS?

Ex.

The line of code below will set the font size of an element to 20 pixels:

**font-size: 20px;**

‘font-size’ is the property in this example.



# What is CSS?

*Selectors* tell the browser which HTML element to apply the CSS *property* to.



# What is CSS?

Ex.

The line of code below will set the font size of all h1 element to 20 pixels:

```
h1 {  
    font-size: 20px;  
}
```

h1 is the selector in this example.



# What is CSS?

To select a series of *class elements* to style, use a period (.) before the name of the class.



# What is CSS?

Ex.

The line of code below will set the font size of all elements with the class name of “bigFont” to 80 pixels.

```
.bigFont {  
    font-size: 80px;  
}
```



# What is CSS?

To select an element with an ID to style, use a pound sign (#) before the name of the ID.



# What is CSS?

Ex.

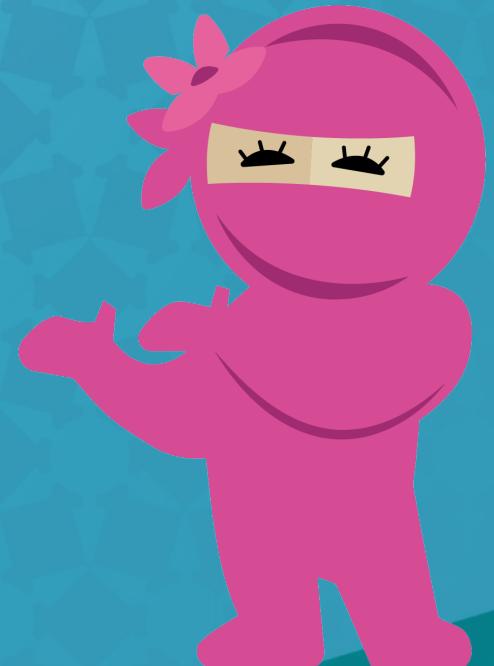
The line of code below will set the font size of a single element with the ID “bigFont” to 80 pixels.

```
#bigFont {  
    font-size: 80px;  
}
```





Let's add some style to our website!



# CSS Syntax

```
body {  
    background-color: "lightblue";  
}
```



# CSS Syntax

```
h1 {  
    font-size: 25px;  
}
```



# CSS Syntax

```
li {  
    font-style: italic;  
}
```



# CSS Syntax

```
#goodAt {  
    text-decoration: underline;  
}
```



# CSS Syntax

```
div {  
    background-color: white;  
    border: 1px solid black;  
    width: 350px;  
}
```



# CSS Syntax

```
a {  
    color: black;  
}
```





# Margins vs. Padding



# Margins

A margin creates space for an HTML element *outside* of its border.



# Margins

```
div {  
    margin: 50px;  
}
```



# Padding

**Padding** creates space for an HTML element *inside* of its border.



# Padding

```
div {  
  padding: 50px;  
}
```



# CSS Syntax

```
div {  
    background-color: white;  
    border: 1px solid black;  
    width: 350px;  
    padding: 15px;  
}
```



# CSS Syntax

```
img {  
    height: 100px;  
    width: auto;  
}
```



# CSS Syntax

```
a {  
    color: black;  
}
```





Go to [w3schools.com](https://www.w3schools.com)





Select the language that you would like to learn more about from the menu at the top of the page.



## CSS Advanced

- [CSS Rounded Corners](#)
- [CSS Border Images](#)
- [CSS Backgrounds](#)
- [CSS Colors](#)
- [CSS Gradients](#)
- [CSS Shadows](#)
- [CSS Text Effects](#)
- [CSS Web Fonts](#)
- [CSS 2D Transforms](#)
- [CSS 3D Transforms](#)
- [CSS Transitions](#)
- [CSS Animations](#)
- [CSS Tooltips](#)
- [CSS Style Images](#)
- [CSS object-fit](#)

You can choose any of the options on the menu on the left side to learn more about how to incorporate the topic into your code.



## CSS Example

```
body {  
    background-color: lightblue;  
}  
  
h1 {  
    color: white;  
    text-align: center;  
}  
  
p {  
    font-family: verdana;  
    font-size: 20px;  
}
```

[Try it Yourself »](#)

Once you've selected a topic, you can find a range of examples of how to implement the code correctly.

If you'd like to play with the code yourself, you can click the green 'Try it Yourself' button.



Result Size: 705 x 640

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: lightblue;
}

h1 {
    color: white;
    text-align: center;
}

p {
    font-family: verdana;
    font-size: 20px;
}
</style>
</head>
<body>

<h1>My First CSS Example</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

My First CSS Example

This is a paragraph.

From there, you can edit and run the code yourself.

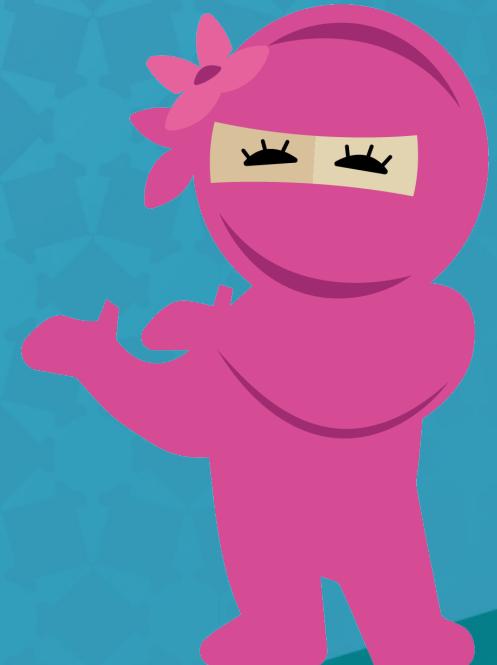




# Free Time

*Add some more style to your site!*

*Use [w3schools.com](https://www.w3schools.com)*





# BREAK TIME





# Let's make a button change colors!



# Make a Button

```
<button> My Button </button>
```



# Style the button

```
button {  
background-color: blue;  
color: white;  
}
```



# Make the button change colors

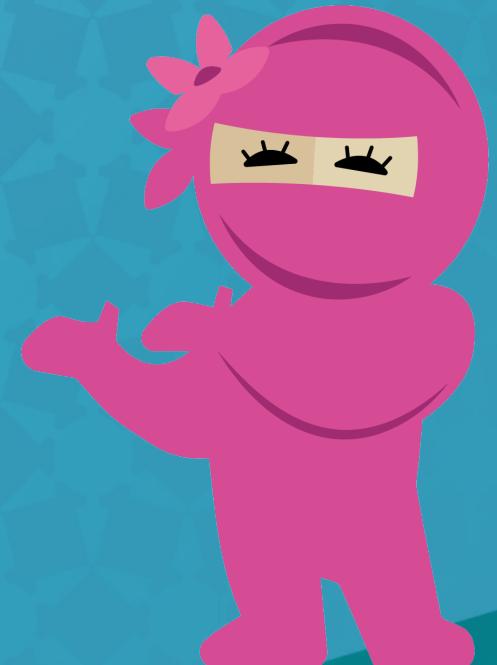
```
button:hover {  
    background-color: black;  
    cursor: pointer;  
}
```





# What did we learn today?

*Trashketball Cheat Sheet*



# WEDNESDAY



**Today we will...**

- Learn some JavaScript
- Make our website background change colors

# Pictionary

Guess what your fellow camper is drawing.



# REVIEW

## Trashketball





# JavaScript Vocabulary



# What is a variable?

A variable stores a value that can be changed later as needed.



# What is a variable?

Ex.

```
var a = 2;
```

```
var sum = a + 1;
```

*//The value stored in the sum  
variable is 3.*



# What is DOM?

DOM stands for Document Object Model.



# What is DOM?

It represents the properties of an HTML website and allows programmers to modify them.



# What is a function?

It represents the properties of an HTML website and allows programmers to modify them.



# If/Else Statements

It represents the properties of an HTML website and allows programmers to modify them.





# Let's make our website background change colors!



# Here's what we've done so far...

```
function changeColor() {  
    var body = document.getElementById("body");  
    if (body.style.backgroundColor == "lightpink") {  
        document.body.style.backgroundColor = "red";  
    }  
    else {  
        document.body.style.backgroundColor = "lightpink";  
    }  
}
```





# What did we learn today?

*3 Things you Learned*

*2 Questions*

*1 Thing you Want Sensei to  
Know*



# THURSDAY



**Today we will...**

- **Work together to complete JavaScript challenges**
- **Begin working on our personal websites**

# Charades

Guess what your fellow camper is acting out.

# Challenge #1 - Addition Calculator

Make a website that will allow a user to enter 2 numbers (using HTML input fields) and will display the sum of those 2 numbers.



# Challenge #2 – Guessing Game

Create a function that generates a random number between 1 and 10. Allow the user to guess the number that was generated (using HTML input fields). If they are correct, display a congratulatory message. If they are incorrect, display the generated number.



# Personal Website

- Make a website using HTML, CSS, and JavaScript.
- It can include anything you want, as long as it is appropriate.
- On Friday, we will all present our sites.
- You can use **w3schools.com** as a resource.





# REVIEW

## Elevator Pitch



# FRIDAY



**Today we will...**

- Make final touches on our websites
- Present them to our fellow campers



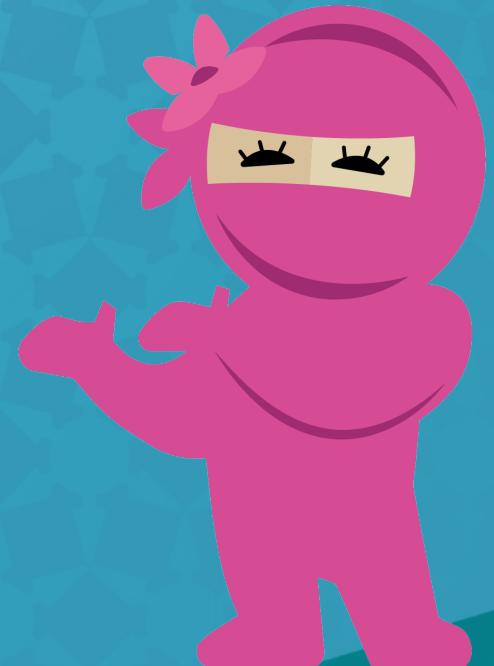
# About Me Presentation

Present your About Me website to your fellow campers.



# REVIEW

Jeopardy!





# Free Time

Finish up your personal websites!





# End of Camp Celebration!

