PROJECT 6
POSITIONING ELEMENTS USING CSS

{CODE CLUB}

Introduction: This project will build on your knowledge of **CSS-fu**.

Five ninjas arrive in town and need to hide before anyone notices them. Using your own ninja-like **CSS skills** to get them into a safe spot. You can move the ninjas themselves, and some of the objects in the street too. Quick! There is no time!
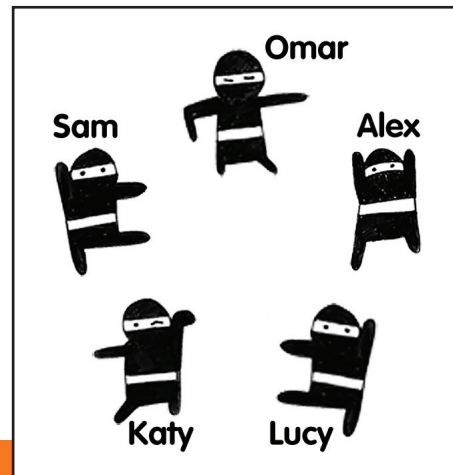
Step 1: Meet the ninjas

1. Open up the file called '**ninjas.html**' in the **code editor**. Open it up in the browser as well.

2. Read through the code. Can you guess which parts correspond to what objects in the street? Notice that we are using **two** languages: **HTML** to add all elements to the page, and **CSS** placed between the '**style**' tags.

3. The elements we will be playing with are the **images** (**<img>** tags). We can control their **position** using **CSS**.

Let's move a ninja

4. Each one of the ninjas is named using the **id** attribute. Let's move Alex The Ninja first. Find Alex's corresponding **CSS rule**.

5. Change the value of '**left**' to **100px** and '**top**' to **320px**. (TO DO: change to place behind an object)

When '**position**' property is set to **absolute** it means we will be describing the position in relation to ninja's parent element - in this case the **<div>** with **id** '**street_corner**'. **px** means '**pixel**'. '**left**' describes how far to move the ninja from the **left edge** (by how many pixels), and '**top**' tells the browser how far to move it down from the **top edge**.

6. Change **left** to '**right**' and **top** to '**bottom**'. Now your code tells the browser to put the ninja **100px to the left of the right edge**, and **320px up from the bottom edge**. **Pixels** describe the smallest physical point your monitor can display. They are often used to describe the screen dimensions.

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Track your progess by ticking off the boxes below:

> ⚠️ 👁 **SAVE your file and VIEW it in your browser** ☐

Step 2: Let's try to describe it differently

Now you know how to use **pixel positioning**. This isn't the only way we can describe the positions on the screen, so let's look at some other options we have.

1. Find the '**wheelie_bin**' element in the **CSS**. **100%** describes the f**ull width** of the available screen space. As we are positioning ninjas and other object in relation to the '**street_corner**', which is **600 pixels** wide, in our case **100% will equal 600px**. If we were to draw a bigger street corner, for example **800px** wide, then **100% would mean 800px**. Depending on context, sizes described in percentages will have different meanings. ☐

Step 3: One more unit type

As if we didn't already have enough unit types, we will try another one! You know how to use pixels and percentages, so now let's try **ems**.

'**Em**' is a measurement type borrowed from the field of typography, which concerns itself with the appearance of letters and text. One **em** is equal to the **current** font size. Notice that at the top of the **CSS** we set **font-size** on the **body** element to **20px**, so one **em** will appear as **20 pixels**.

1. Find the '**bicycle**' in the **CSS**. Apart from the '**em**' bit it should be familiar to you. See if you can move the **bicycle** to hide Sam The Ninja. ☐

2. We've mentioned that the size of the **em** is based on the font size. To see it in practice, find '**body**' in the **CSS**. Change the **font-size** value to **30px**. What happened? ☐

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Because now each **em** is **30 pixels wide** and **30 pixels tall** all elements using this measurement have shifted their position!

Track your progess
by ticking off the
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Step 4: Quick, hide the ninjas!

Now that you know how to **move** the elements on the screen it's time to help the ninjas. Use different ways of **describing** their position. Remember, you can also move some of the **objects**. Which unit do you feel most comfortable using? Find the best way to provide the best hiding. Good luck!

SAVE your file and VIEW it in your browser

Things to try

A). Can you figure out how to make ninjas appear **in front** of some of the street objects? What would happen if you copied the `<img>` tag for the **ninja** after the `<img>` tag that displays the **object**?

B). Can you add some more objects to the scene? You could add images from your computer or ones you find on the internet.