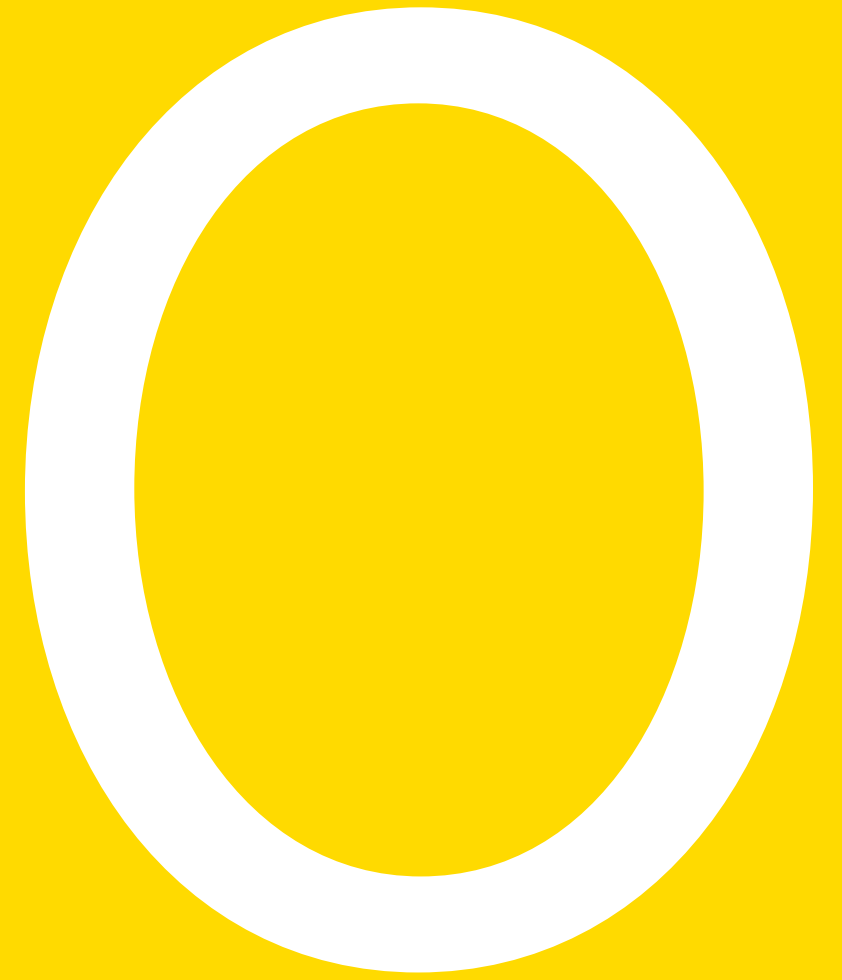
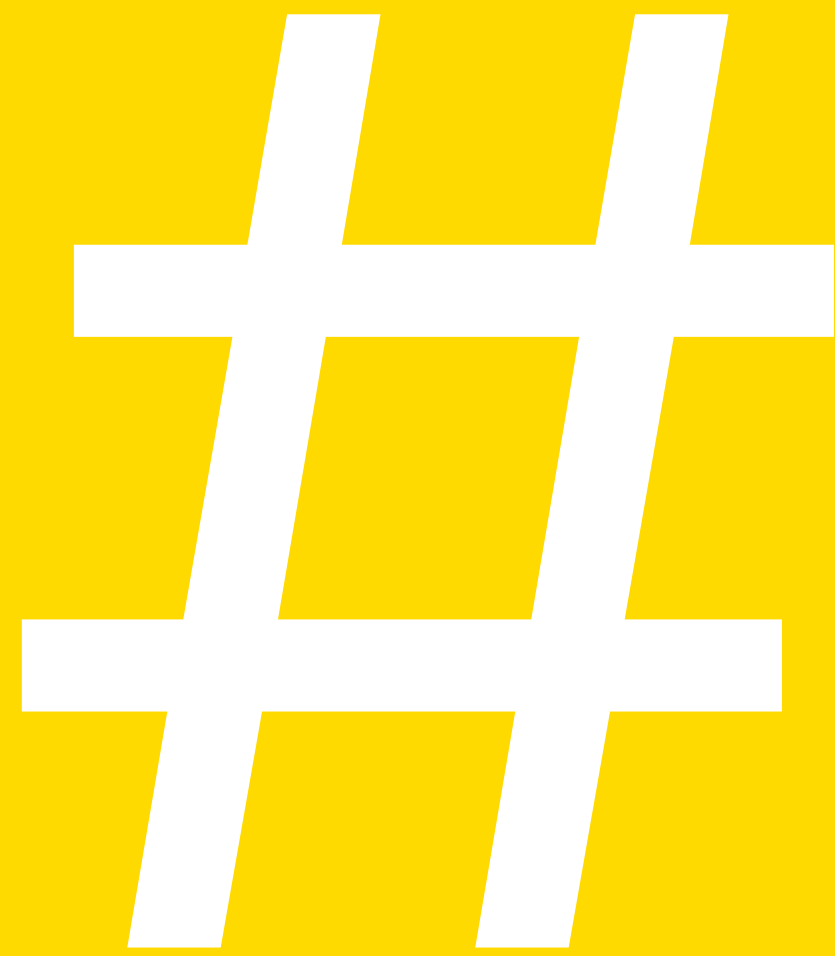


HELLO.



Welcome to the Web Design Module. My name is Eoin Mahon, you can email me at **eoin@metric.ie**

In this term we'll:

- Learn how to write 3 languages: **HTML, CSS and Javascript.**
- Prepare and work with **images, video and sound** online.
- Look at making a **usable, accessible and attractive** website.
- **Build a website** to act as your **portfolio** of work.
- Look at **responsive design** and **SEO.**

Your grade is split across 2 areas:

For this class you are graded on a Pass/Fail basis

Your assignments are as follows:

Term work - in-class and 3 mini-projects

End of term assignment

Everything will be graded on:

- Standard and level of coding.
- How you use consider Interaction Design in your work.
- And the visual design.

For some of you, these will be completely **new languages** and **thought process**.

Stop me

if you're not sure on something or I'm going too fast.

Ask questions

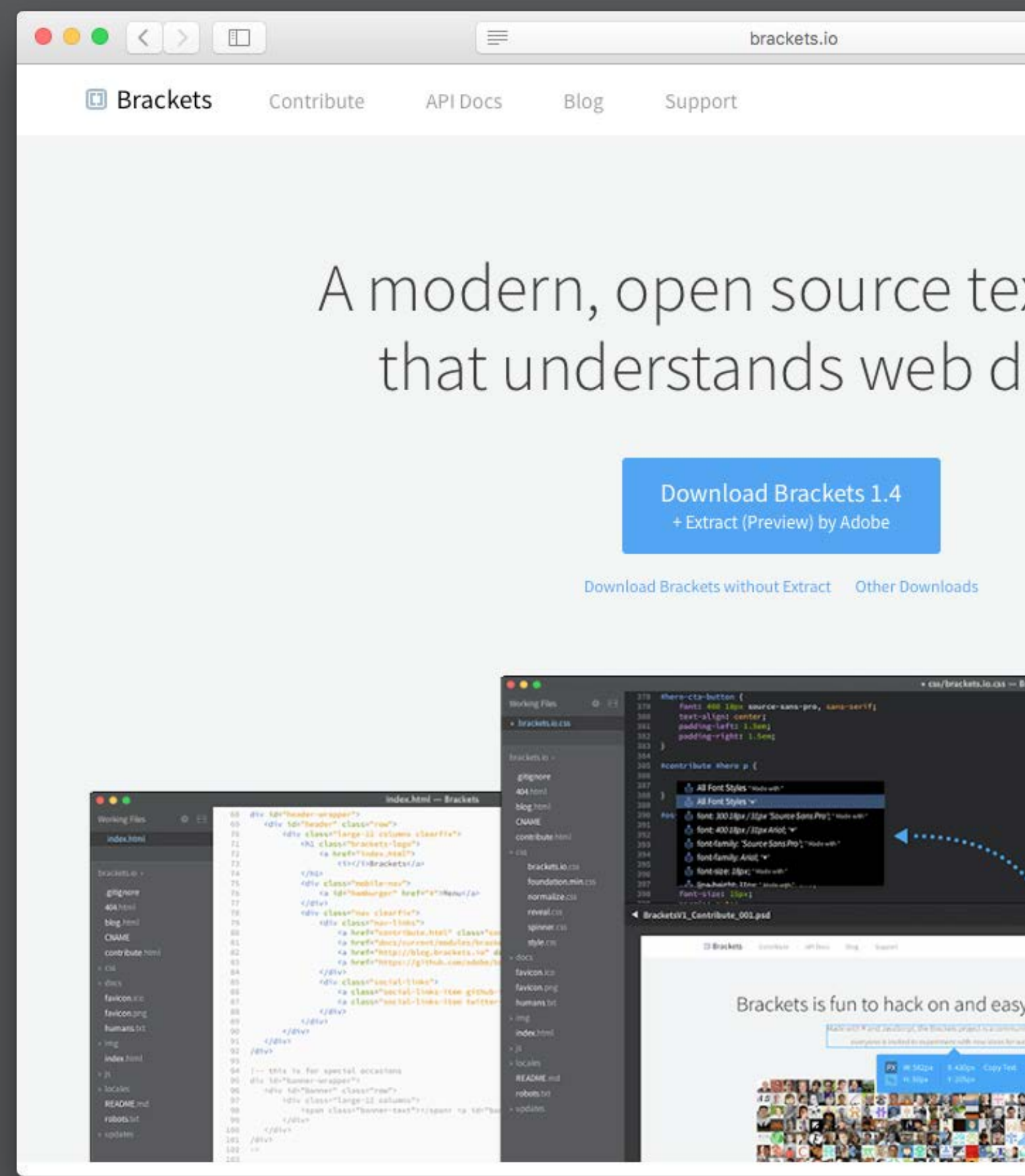
if you want to double check something or you've seen things done differently before.

Web design has **simple software requirements**

Any text editor will do, a good (free) one is **Brackets** by Adobe.

Any browser will do, but **Chrome, Safari** or **Firefox** are best.

WYSIWYG editors can speed up HTML formatting but text editors give you more control and better understanding of the code.



Web design is self policed. It's up to you to maintain standards.

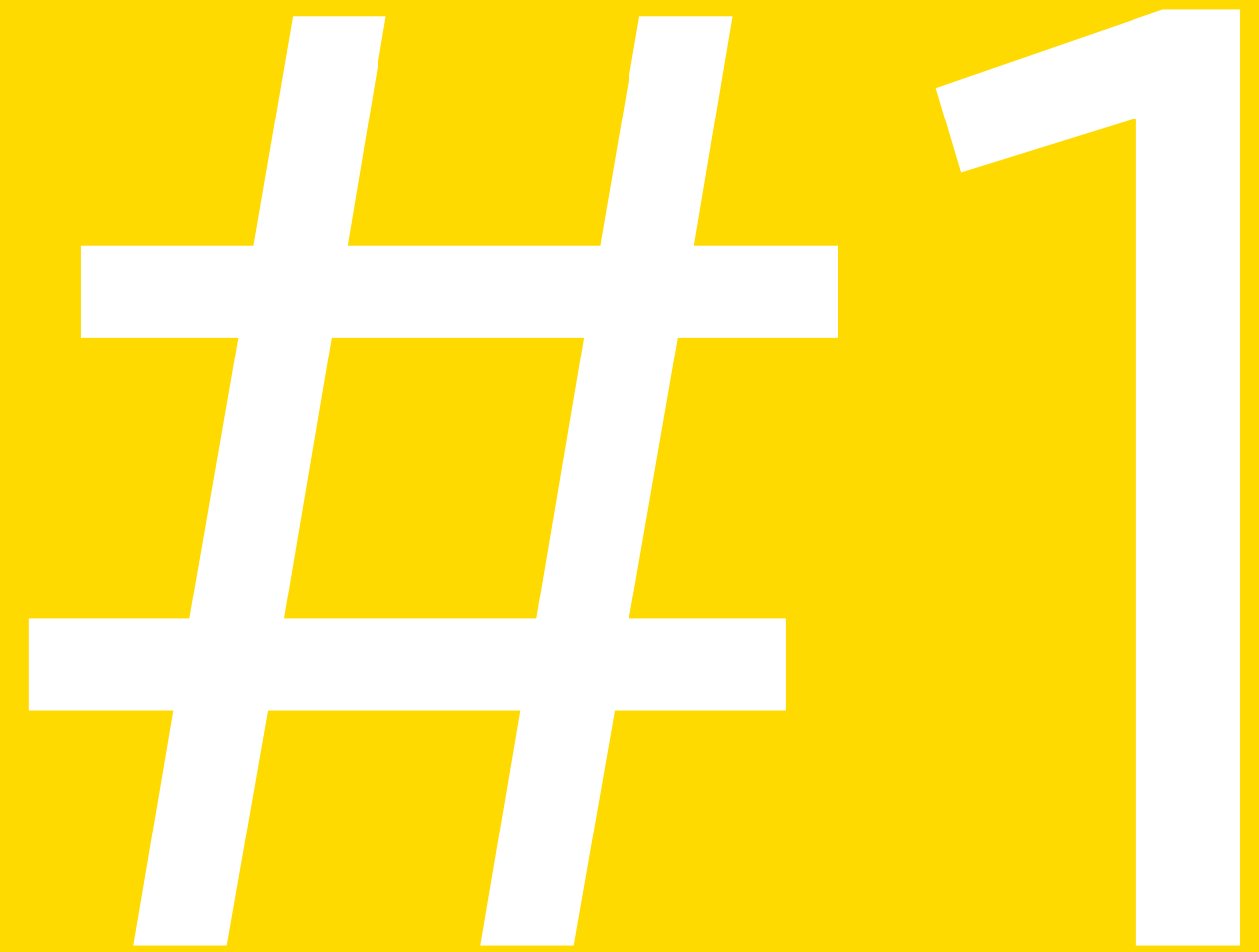
Think of all users.

Over 50% won't be on a desktop. Some might be blind, some won't use Javascript.

Have pride in your code.

An attitude of 'it works = it's fine' will only get you so far. Some browsers can cover code mistakes that other will expose.

INTRO TO HTML5.



1.1 What is HTML?

HTML defines type of content for the browser

e.g. Paragraphs, headings, links

There are different versions of HTML.

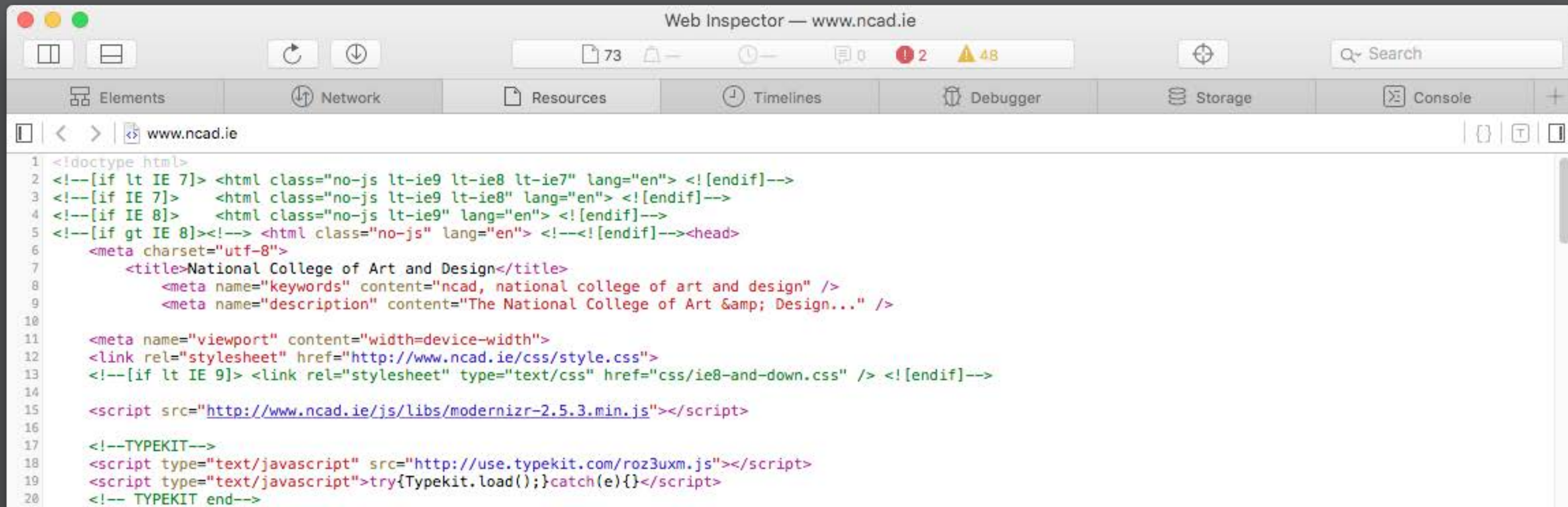
We will write HTML5.

We write and view the same file.

You don't need to export to a different format.

You can see the HTML code of any website.

Try right click on whitespace on a webpage, there should be an option 'View Source' or 'View Page Source'. Alternatively, try the View menu, or View -> Developer.



The screenshot shows a web browser window with the developer tools open. The address bar shows 'www.ncad.ie'. The developer tools panel is open to the 'Elements' tab, displaying the HTML source code of the page. The code is as follows:

```
1 <!doctype html>
2 <!--[if lt IE 7]> <html class="no-js lt-ie9 lt-ie8 lt-ie7" lang="en"> <![endif]-->
3 <!--[if IE 7]> <html class="no-js lt-ie9 lt-ie8" lang="en"> <![endif]-->
4 <!--[if IE 8]> <html class="no-js lt-ie9" lang="en"> <![endif]-->
5 <!--[if gt IE 8]><!--> <html class="no-js" lang="en"> <!--<![endif]--><head>
6   <meta charset="utf-8">
7   <title>National College of Art and Design</title>
8   <meta name="keywords" content="ncad, national college of art and design" />
9   <meta name="description" content="The National College of Art & Design..." />
10
11   <meta name="viewport" content="width=device-width">
12   <link rel="stylesheet" href="http://www.ncad.ie/css/style.css">
13   <!--[if lt IE 9]> <link rel="stylesheet" type="text/css" href="css/ie8-and-down.css" /> <![endif]-->
14
15   <script src="http://www.ncad.ie/js/libs/modernizr-2.5.3.min.js"></script>
16
17   <!--TYPEKIT-->
18   <script type="text/javascript" src="http://use.typekit.com/roz3uxm.js"></script>
19   <script type="text/javascript">try{Typekit.load();}catch(e){}</script>
20   <!-- TYPEKIT end-->
```

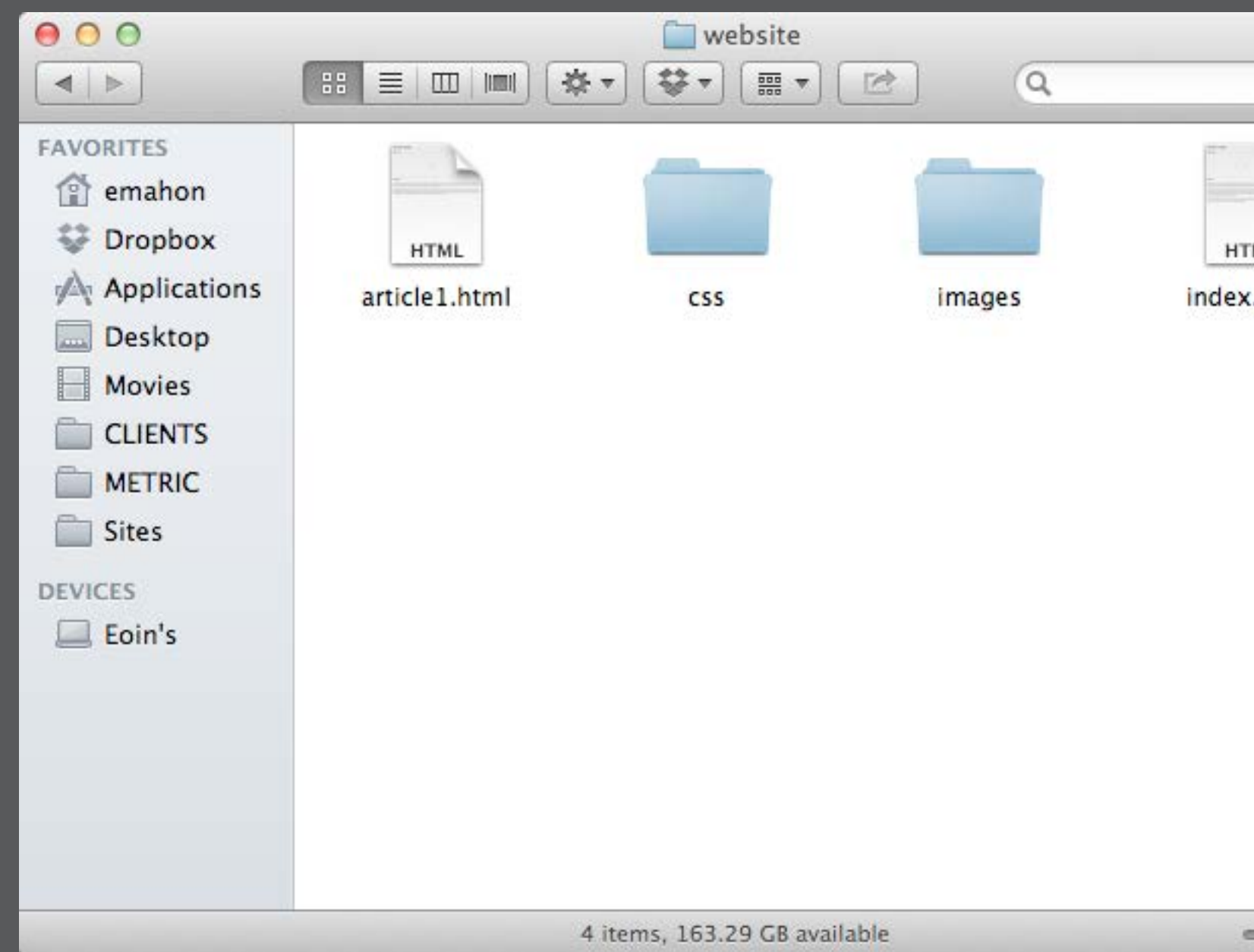
You should stay organised.

Keep a website in one folder.

Use subfolders to separate media and languages.

Lowercase and hyphens
contact-me.html not ~~Contact Me.html~~

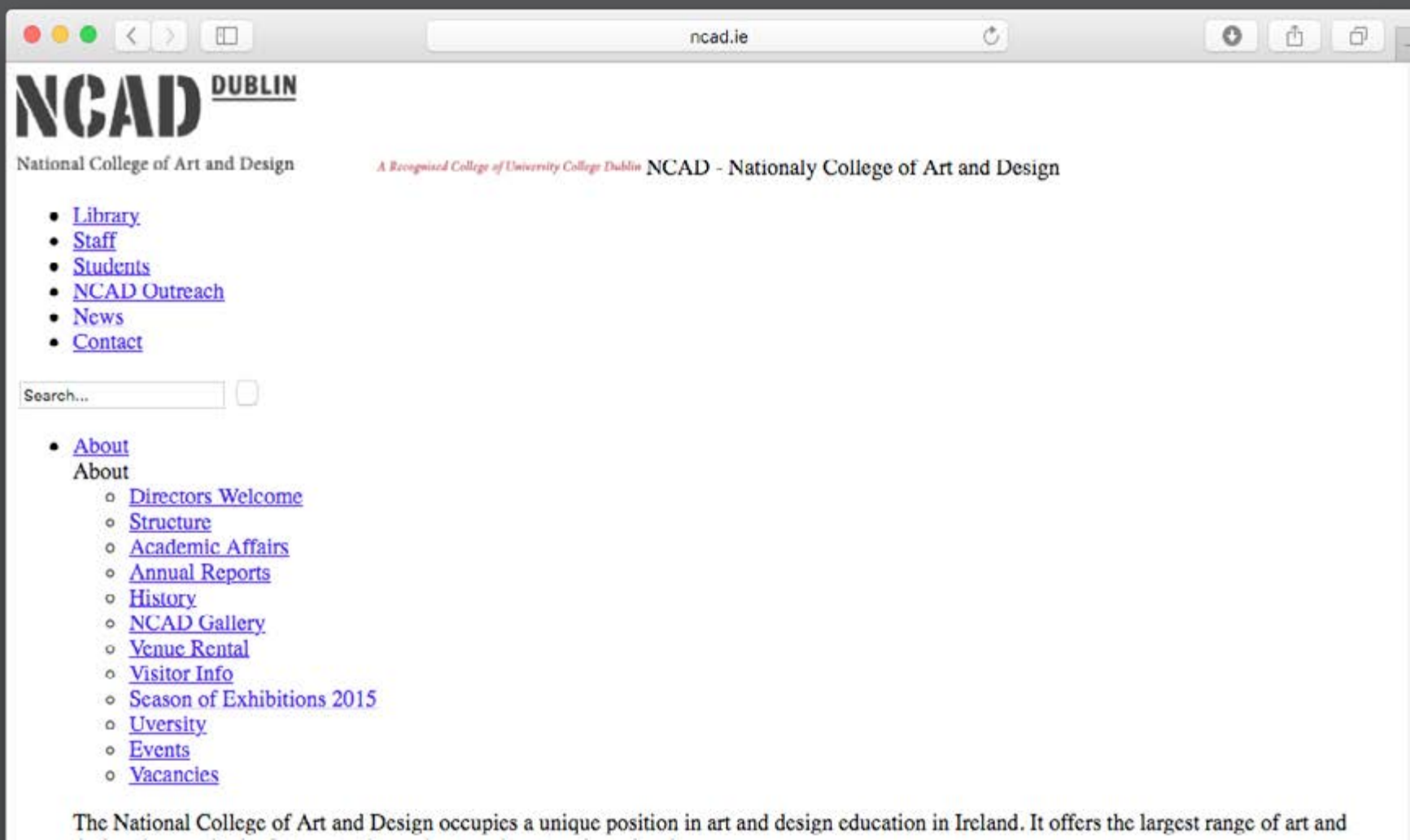
You use index.html
for your homepage.



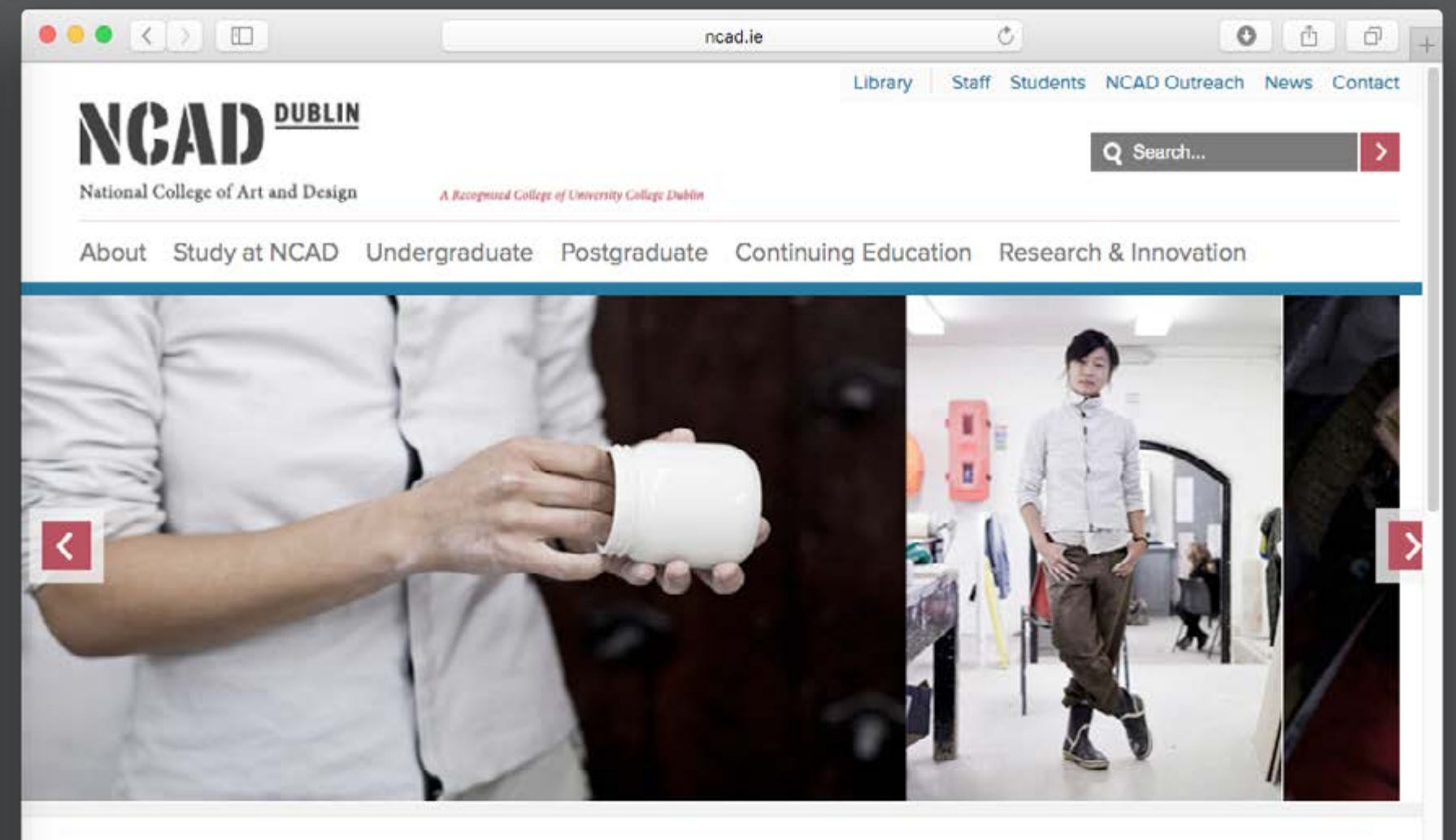
CSS controls the design and layout of HTML elements.

We'll learn to write CSS later. For now we will use Bootstrap, a CSS framework.

HTML only



HTML + CSS

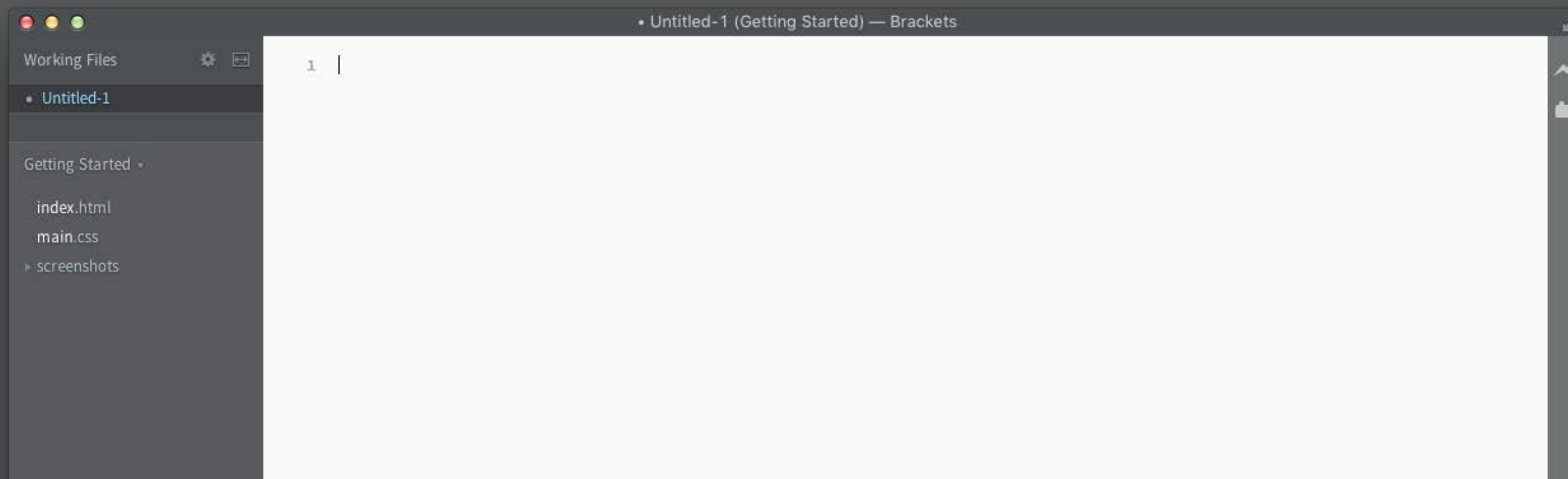


You can code in any text editor.

Open your Text Editor and create a new document.

Create a folder for today's class and...

... save your file. The file extension is .html
Save this file index.html



1.2 HTML elements.

Headings

There are 6 levels available, ranging from h1 to h6.

Paragraphs

Hyperlinks

to link to another page/site, send emails make calls

Images

Lists

to display bulleted or number lists



Tell the web browser when the content type starts and when it ends.



```
<h1>
```

Opening
Tag



Welcome!

What the user sees.



```
</h1>
```

Closing
Tag

Top level headings use `<h1>` and `</h1>` their opening and closing tags.

You can use `h2`, `h3`, `h4`, `h5`, `h6` for lower levels of headings.

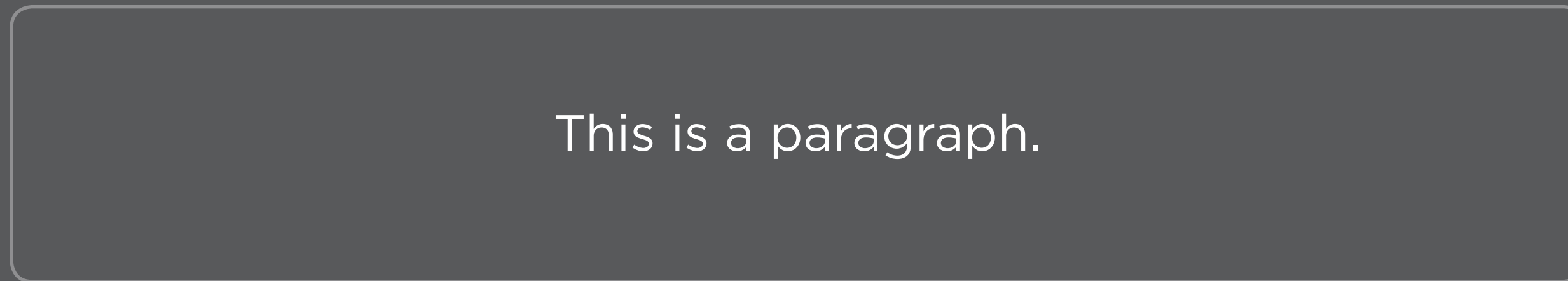


It's the same for a paragraph element.

This time with `<p>` and `</p>`



Opening
Tag



What the user sees.



Closing
Tag



Hyperlinks will also need a **href** attribute

- Hyperlinks open with `<a>` and close with ``
- Attributes go inside the opening tag. You write the attribute name, an equals sign, then the value inside quotes.
- This attribute name is **href**. The value is where you **bring the user**.

Attribute name

```
<a href="http://ncad.ie">
```

Attribute Value

NCAD website

```
</a>
```



3 types of links include:

1. an external website.

You need to include `http://` or `https://` e.g. `http://google.com`

2. a page on the same website.

Use the path to the other file. e.g. `href="contact.html"`

To show a subfolder, use a forward slash e.g. `href="week1/index.html"`

3. calling a program action.

Like opening the users email program using `mailto`
e.g. `href="mailto:eoin@metric.ie"`

You can nest certain HTML elements inside others.

- e.g. A hyperlink can appear inside a paragraph or heading.

```
<p>See the <a href="index.html">homepage</a></p>
```

- Make sure to close the tags in the correct order. A nested element closes before its parent:

```
<p> <a> test </a> </p>   not   <p><a> test </p></a>
```



Images need 2 attributes, first is **src**...

- The src attribute defines the image file to display. The value is the path to the file relative to the .html document
- It's a good idea to keep images in their own folder e.g. images/.
- Images have only 1 set of angle brackets, not the opening + closing combination.

Attribute name

``

Attribute Value



..the second attribute is **alt**.

This time we are setting a text based description of the image for users that don't see the image.

Attribute name Attribute name

``

Attribute Value Attribute Value

The diagram illustrates the structure of the HTML `` tag. It shows the tag with two attributes: `src="images/cat.jpg"` and `alt="A cute cat"`. Brackets above the `src` and `alt` labels identify them as "Attribute name". Brackets below the `"images/cat.jpg"` and `"A cute cat"` strings identify them as "Attribute Value". The `alt` attribute and its value are highlighted in yellow.



Bullet lists use 2 sets of tags.

Open the list with ``

Each list entry opens with `` and ends with ``

Close the list with ``

```
<ul>
```

Open the list

```
<li> Apples </li>
```

```
<li> Bananas </li>
```

List elements

```
</ul>
```

Close the list

Numbered lists replace `` with ``

ol = ordered list

ul = unordered list

```
<ol>
```

Open the list

```
<li> U Bolt </li>
```

```
<li> J Gatlin </li>
```

List elements

```
</ol>
```

Close the list

1.3 A HTML Page.

A page has 3 areas

1. An overall html area

that contains both

2. a head area

and

3. a body area

```
<html>
```

```
<head>
```

Defines overall settings

```
</head>
```

```
<body>
```

All of your content

```
</body>
```

```
</html>
```

and you also need to specify a doctype.

Then your entire html page should be wrapped in opening and closing html tags.

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

```
    EVERYTHING ELSE
```

```
</html>
```

The `<head>` defines page settings, it's hidden.

The `<body>` is for the content, it's visible.

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

```
  <head>
```

```
    Overall Page settings
```

```
  </head>
```

```
  <body>
```

```
    All your content
```

```
  </body>
```

```
</html>
```

Inside the `<head>` we define a **character set** and a **page title**.

```
<head>
```

```
  <meta charset="utf-8">
```

```
  <title>This is the title of the page</title>
```

```
</head>
```

We can also load a CSS file (to style our page). Today we'll use Bootstrap, a CSS framework hosted online.

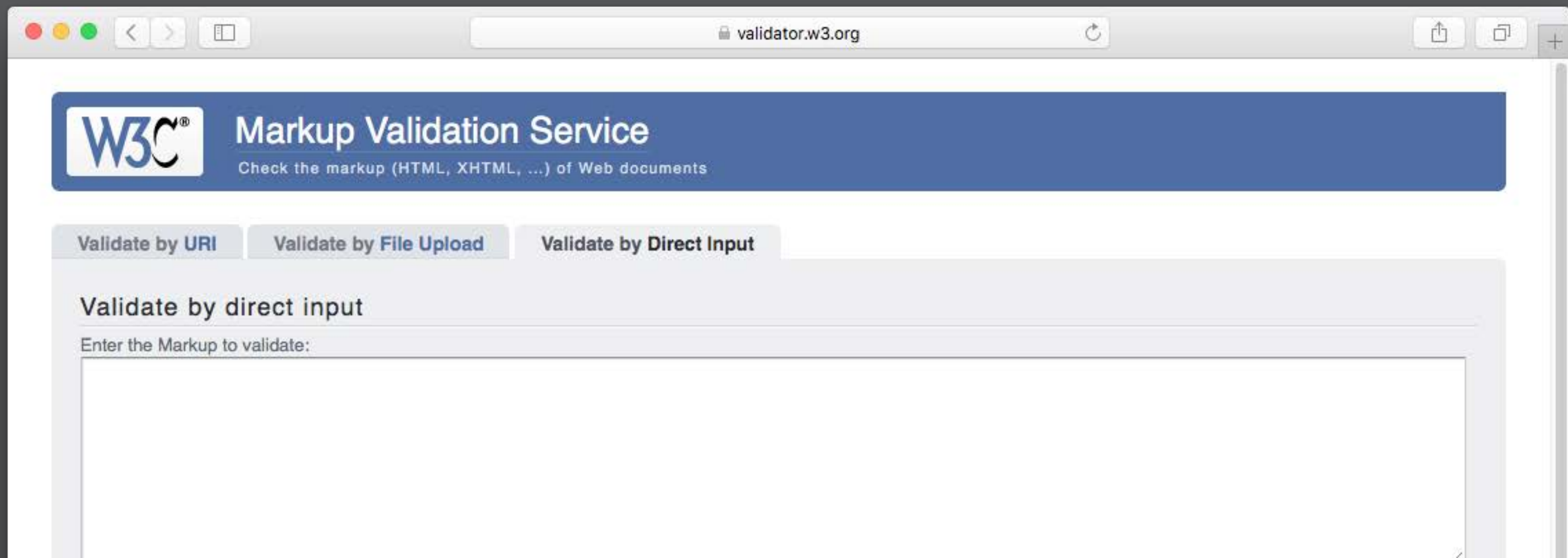
```
<head>  
  <meta charset="utf-8">  
  <title>This is the title of the page</title>
```

```
<link rel="stylesheet" href="https://stackpath.  
bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
```

```
</head>
```

There is an **online tool** to check your code
<https://validator.w3.org/>

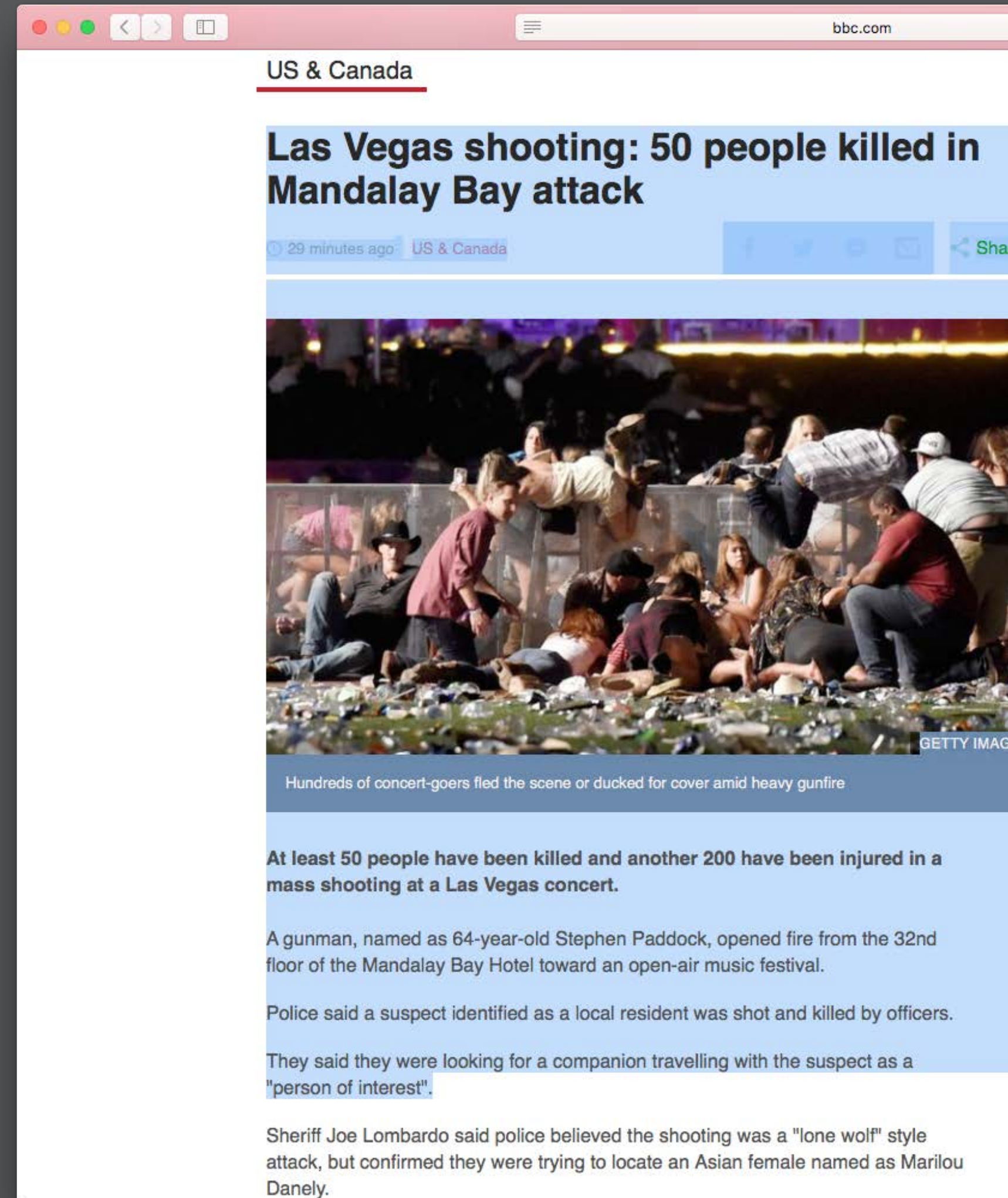
- Use the Validate by direct input option.
- Copy all the code from your file and paste into the text area.
- Hit the check button to check for errors.



1.4 To Do.

Create a new html file and save it as article.html

- Add a doctype and html, head and body tags.
- Pick a news article from an website . Copy and paste some of the article content from their site into your file. (ignore the navigation)
- Using HTML, format the pasted text to appear similar to the article.
- Download and display a relevant image.
- Link from the index.html page to article.html and vice versa.



The screenshot shows a web browser window displaying a news article from BBC.com. The browser's address bar shows 'bbc.com'. The article is titled 'Las Vegas shooting: 50 people killed in Mandalay Bay attack' and is categorized under 'US & Canada'. It was published '29 minutes ago'. The main image shows a large crowd of people at night, many sitting on the ground in front of a metal barricade, appearing to be in a state of panic or seeking cover. A caption below the image reads: 'Hundreds of concert-goers fled the scene or ducked for cover amid heavy gunfire'. The article text states: 'At least 50 people have been killed and another 200 have been injured in a mass shooting at a Las Vegas concert. A gunman, named as 64-year-old Stephen Paddock, opened fire from the 32nd floor of the Mandalay Bay Hotel toward an open-air music festival. Police said a suspect identified as a local resident was shot and killed by officers. They said they were looking for a companion travelling with the suspect as a "person of interest". Sheriff Joe Lombardo said police believed the shooting was a "lone wolf" style attack, but confirmed they were trying to locate an Asian female named as Marilou Danely.'

For the next class:

- Create another html file in your folder, save as contact.html and add h1, h2, p, a, ul and img elements.
- Link this page from your index.html file
- Include a nested list (a list inside a list). (https://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists_nested)
- Make clicking an image a link to email you.

Need help?

- https://www.codecademy.com/courses/learn-html-elements/lessons/intro-to-html/exercises/intro?action=lesson_resume&course_redirect=learn-html
- <https://www.w3schools.com/html/default.asp>

Want to try something else?

- Use Bootstrap component classes to change the appearance of your HTML elements. <http://getbootstrap.com/docs/4.1/components/alerts/>