CITY ST GEORGE'S UNIVERSITY OF LONDON

STEM Digital Academy

School of Science & Technology

Introduction

Web Technologies

Lecture by

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```
<!doctype html>
<html>
    <head>
      <title>
        Web Technologies
      </title>
      <style>
        p {
          color: blue;
        }
      </style>
      <script>
      console.log("client-side");
      </script>
    </head>
    <body>
        <p>
            Welcome!
        </p>
    </body>
</html>
```

What we will cover

- Web architecture
- Client-side tools and technologies
- Introduction to HTML
- Introduction to CSS

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What is the web?

- **Internet**
  - All computers and hardware components
- **World Wide Web**
  - Software to access information

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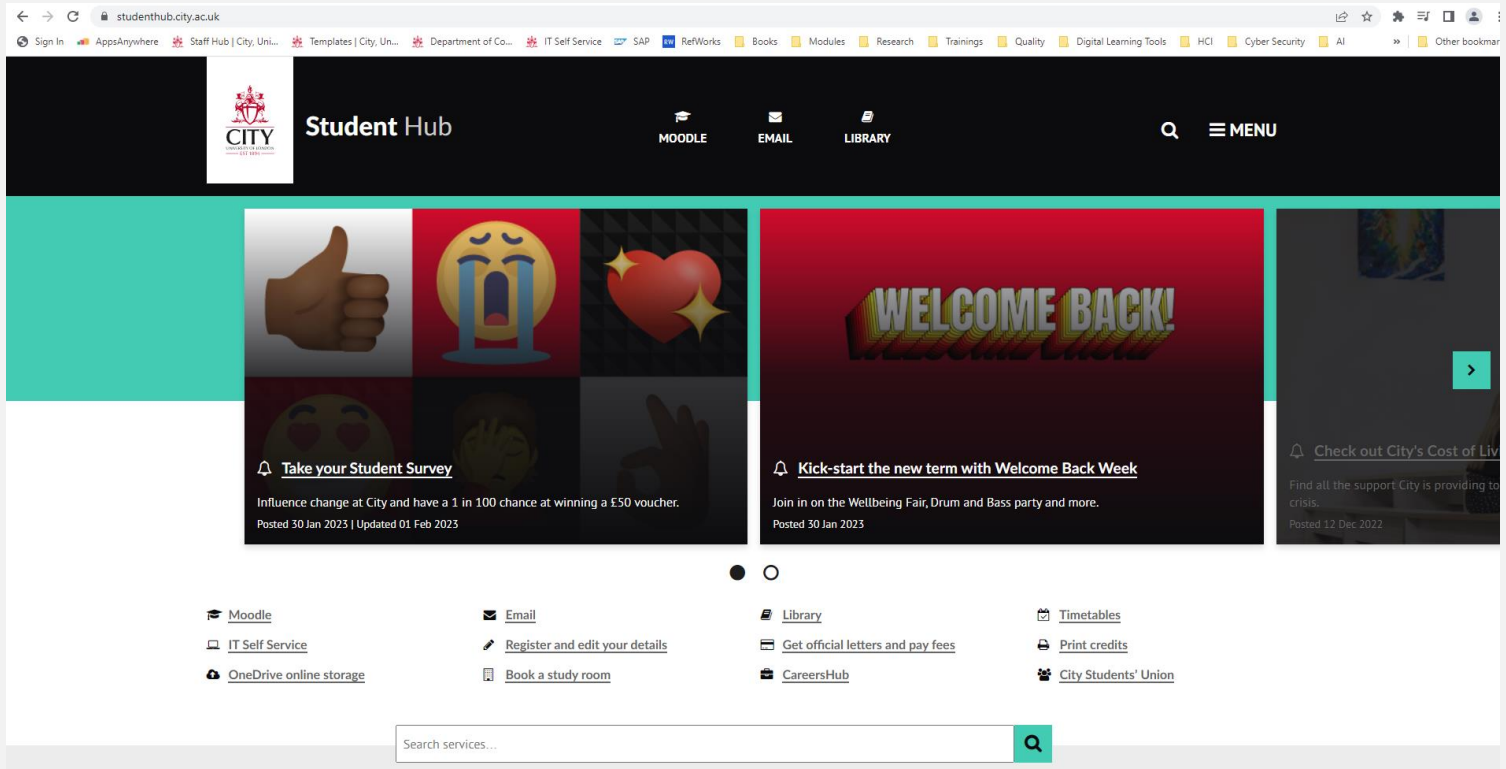
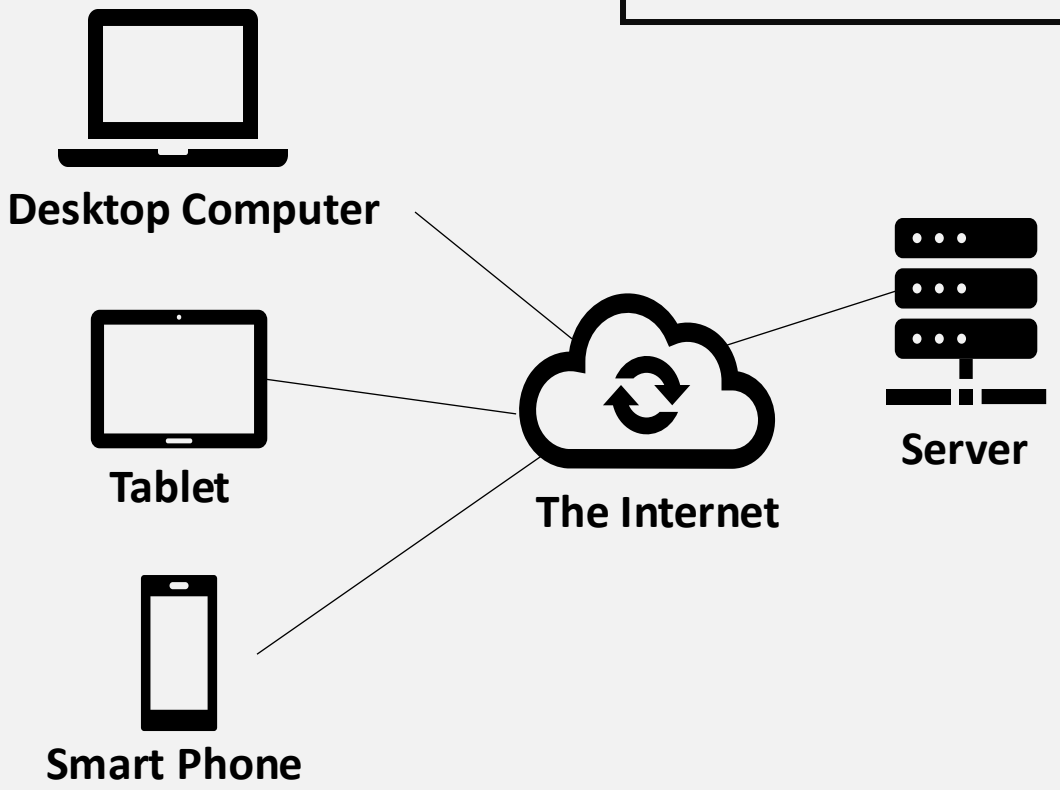
Web Applications



Web Architecture

- **Client side**
  - Desktop Computer
  - Tablet
  - Smart Phone
- **Server side**
  - Web Server
  - Application Server
  - Database Server



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Client-Side Tools and Technologies

- **Web browser**
  - Google Chrome
  - Microsoft Edge
  - Safari

- **Client-Side scripting languages**
  - HTML
  - CSS
  - JavaScript

Web Browser

To view a web page

Popular examples of web browsers are:

- Mozilla Firefox
- Safari for Apple
- Microsoft Edge
- Opera
- Google Chrome

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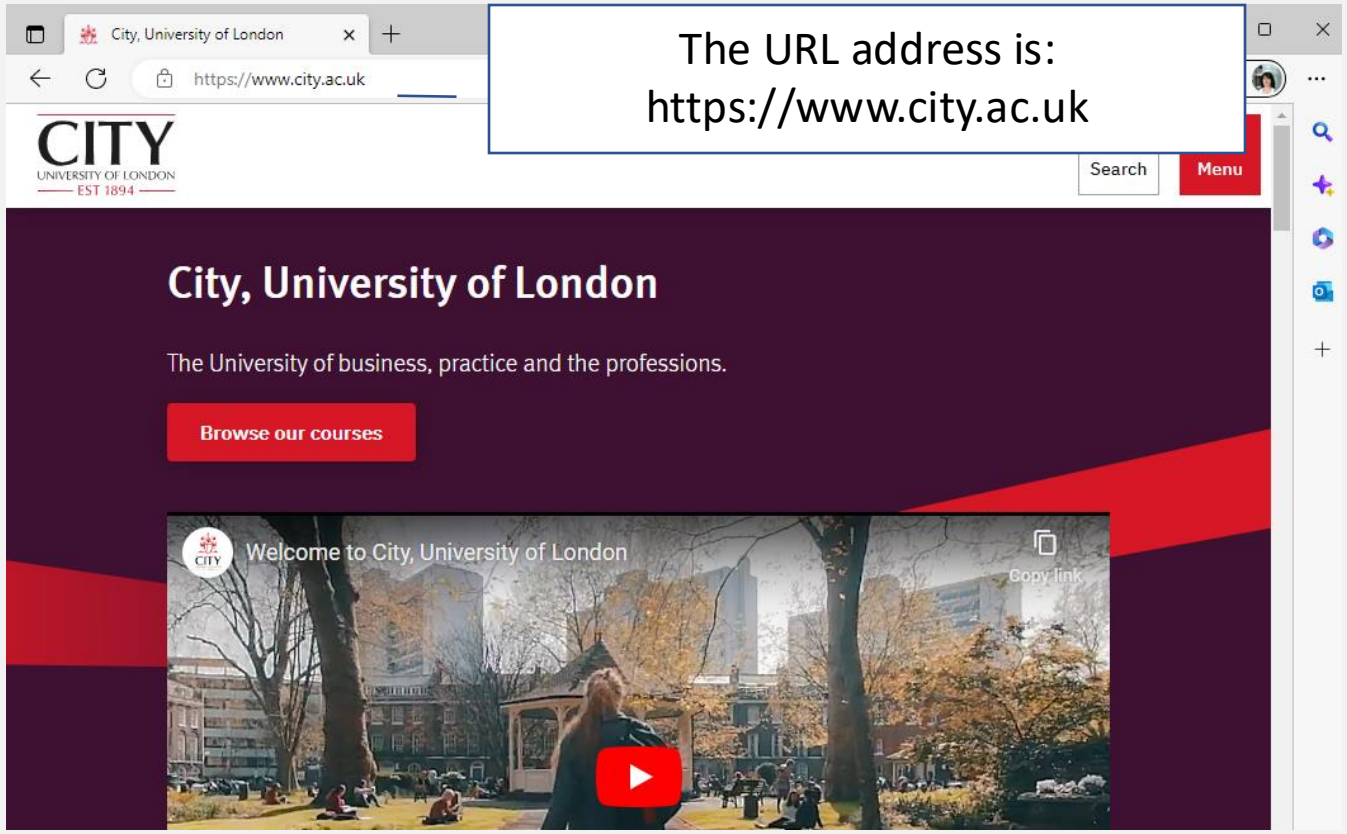
Web page



The URL address is:
https://www.city.ac.uk

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Client-side Scripting Languages

- HTML
- CSS
- JavaScript

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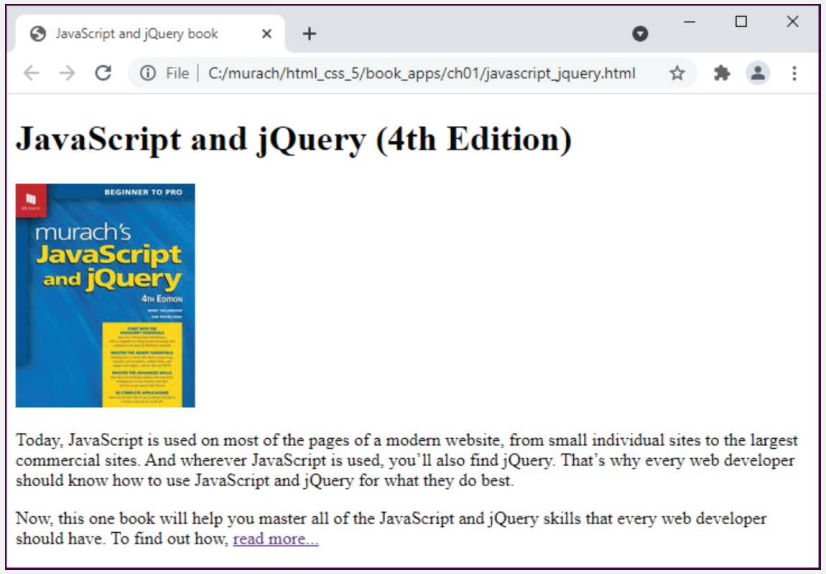
HTML
HyperText Markup Language



1. The web page to introduce a JavaScript book on a web browser

```
<!doctype html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <title>JavaScript and jQuery book</title>
    </head>
    <body>
        <h1>JavaScript and jQuery (4th Edition)</h1>
        <img src="javascript_jquery.jpg"
             alt="JavaScript and jQuery Book">
        <p>Today, ... does best.</p>
        <p>Now, ... <a href="">read more...</a></p>
    </body>
</html>
```

2. The HTML code for the web page

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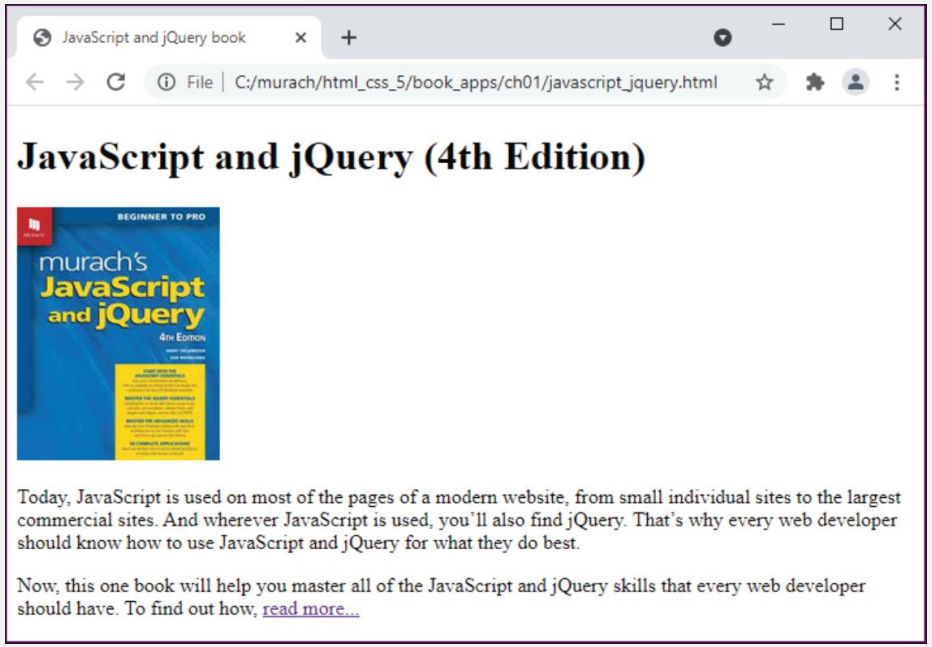
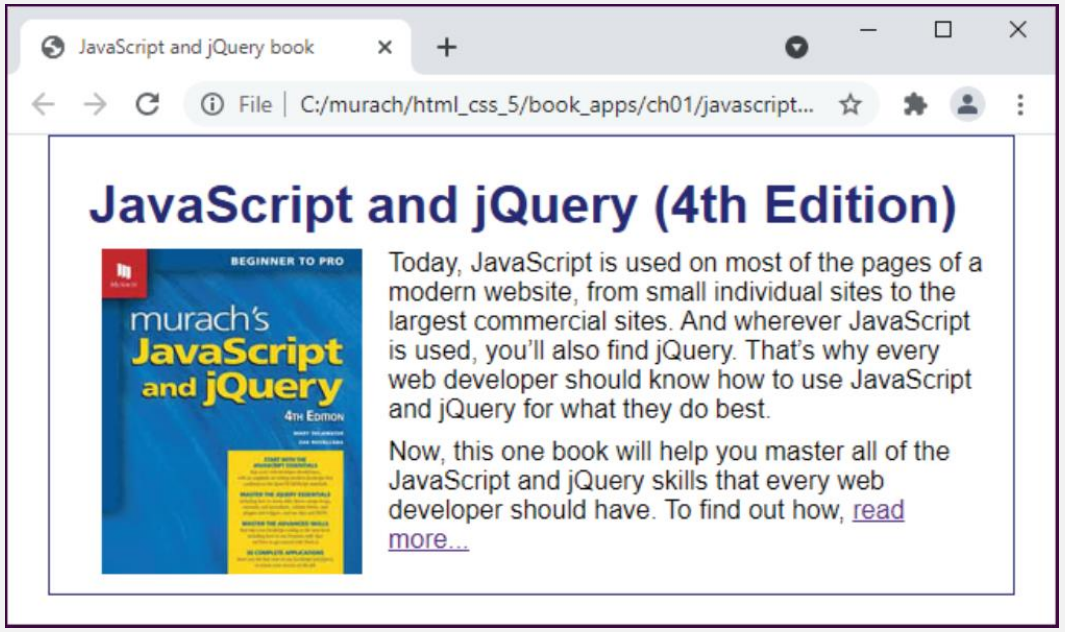
HTML and CSS



1. The web page created only with HTML



2. The web page created with HTML and CSS

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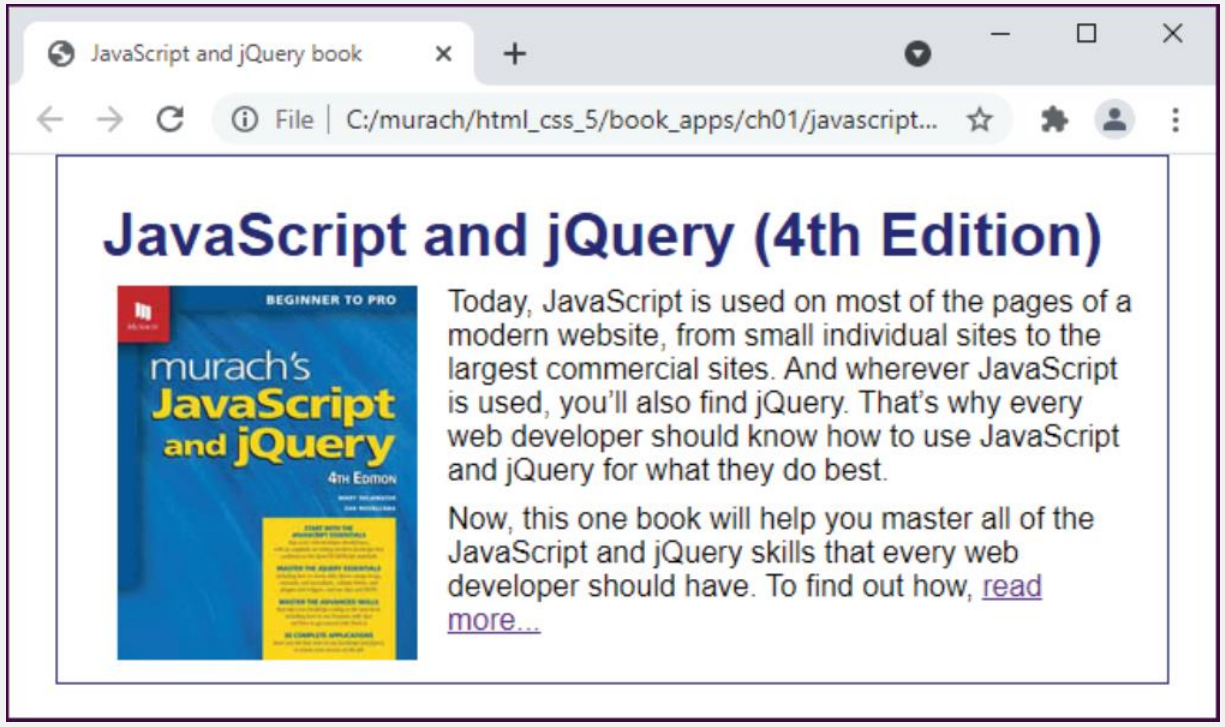
CSS
Cascading Style Sheets



1. The web page displayed in a web browser

```
body {
    font-family: Arial, Helvetica, sans-serif;
    font-size: 100%;
    width: 550px;
    margin: 0 auto;
    padding: 1em;
    border: 1px solid navy;
}
h1 {
    margin: 0;
    padding: .25em;
    font-size: 200%;
    color: navy;
}
img  {
    float: left;
    margin: 0 1em 1 em 1em; }
p {
    margin: 0;
    padding-bottom: .5em; }
```

2. The CSS code to add the styling

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Try It Yourself

This activity is to practice how to open an html file

1. **Download the zip file (w1_1.zip) provided on Canvas for Week 1.**
2. **Extract all files.**
3. **There are two files. Double click on book_webpage.html file and the web page will open in your browser.**

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