When a browser loads a web page, it creates a model of that page.

This is called a “DOM tree” and it is stored in the browser’s memory.

Every element, attribute, and piece of text in the HTML is represented by its own “DOM node”.
There are four main types of nodes.

- The Document node, which represents the entire page.
- Element nodes, which represent individual HTML tags.
- Attribute nodes, which represent attributes of HTML tags, such as class.
- Text nodes, which represent the text within an element, such as the content of a `p` tag.

We talk about the relationship between *element* nodes as “parents,” “children,” and “siblings.”
<html>
  <head>
    <title>New York University</title>
  </head>
  
  <body>
    <h1>Web Development</h1>
    
    <p>This graduate-level course uses a project-based learning approach toward the study of web technologies and web programming.</p>
    
    <p>Class notes are available <a href="notes.html">here</a>.</p>
  
  </body>
</html>
Web Development
CSCI-GA 1122

JavaScript
Document Object Model

```
html
  head
    title
      New York University
  body
    h1
      Web Development
    p
      This graduate-level course...
    p
      Class notes are here.
```
Adapted from Eloquent JavaScript:
The Document Object Model
eloquentjavascript.net/14_dom.html
JavaScript methods that find elements in the DOM tree are called “DOM queries.”

DOM queries may return one element, or they may return a “node list.”

Which DOM query you use depends on what you want to do and the scope of browser support required.
Document Object Model

DOM Queries

JavaScript methods that return a single element node:

- `getElementById()`
- `querySelector()`
Document Object Model

DOM Queries

JavaScript methods that return one or more elements as a node list:

- `getElementsByClassName()`
- `getElementsByTagName()`
- `querySelectorAll()`
JavaScript
Document Object Model