Software Studio
軟體設計與實驗

DOM

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What is DOM?

Document **O**bject **M**odel

The whole HTML document is an object.
We can use JavaScript to control the HTML document.

Finding Objects in DOM

- document.getElementById(id_name):
  - Find a node with its id.
- document.getElementByClassName(class_name)
  - Find a node with its class.
- document.getElementByTagName (tag_name)
  - Find a node with its tag.

<p class="class_name" id="id_name">Content</p>

Manipulating Objects in DOM

- node.style.css_attribute:
  - Get or set CSS attribute.

- node.innerHTML:
  - Get or set HTML content of a node.

- node.attribute_name:
  - Get or set HTML attribute of a node.

<button id="id" autofocus style="font-size:50pt">Click!!</button>

More information about DOM

A DOM Example

```html
<html>
<head>
    <meta content="text/html; charset=UTF-8">
    <title>DOM example #1</title>
    <script type="text/javascript">
        function init() {
            var text = document.getElementById("dom1");
            text.innerHTML = "Hello DOM!!";
        }
    </script>
</head>
<body onload="init();">
    <p id="dom1"></p>
</body>
</html>
```

Hello DOM!!

DOM Example (explained)

```
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First we use **getElementById** to get the object with specific id. ("dom1" in this example)

And then we use **innerHTML** to modify **content** of this object to display our string.

The <p> is an object in JavaScript with "**dom1**" as its id.

We can use getElementById to modify its content.

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Try yourself!

Q:How can we change the value of the HTML <input> tag?

```
<html>
    <body>
        <input type="text" id="SStudio" value="0" readonly>
    </body>
</html>
```

```
var answer = document.getElementById("SStudio");
answer.value = "1";
```

Further Reading

- https://ithelp.ithome.com.tw/articles/10202689