Selecting HTML Elements with JavaScript

Hello

☐ Click Me

- Google
- Second
- Third

```
> document.getElementsByTagName("li");  //Get List
⌄ ▼HTMLCollection(3) [li.list, li.list, li.list] ⓘ
    ▶0: li.list
    ▶1: li.list
    ▶2: li.list
      length: 3
    ▶[[Prototype]]: HTMLCollection
> //Element means all the elements of particular name like li that's for list
⌄ undefined
> document.getElementsByTagName("li").style.color = "red";
⊗ ▶Uncaught TypeError: Cannot set properties of undefined (setting 'color')
      at <anonymous>:1:49
>
  (anonymous) @ VM368:1
⊗ Uncaught SyntaxError: Invalid or unexpected token
> document.getElementsByTagName("li")[2].style.color = "Purple";
⌄ 'Purple'
> document.getElementsByTagName("li").length;
⌄ 3
> document.getElementsByClassName("btn");          //by class like button class is btn
⌄ ▶HTMLCollection [button.btn]
> document.getElementsByClassName("btn").style.color = 'red';
⊗ ▶Uncaught TypeError: Cannot set properties of undefined (setting 'color')
      at <anonymous>:1:52
> //The error is because we have to select class and particular class item like btn has only one item. Let's see
  document.getElementsByClassName("btn")[0].style.color = 'red';
⌄ 'red'
>


> //By id
  document.getElementById("title");
⌄   <h1 id="title">Hello</h1>

> //By id
  document.getElementById("title").innerHTML = "Good Bye!";
⌄ 'Good Bye!'

> document.querySelector("#title");
⌄   <h1 id="title">Good Bye!</h1>

> document.querySelector(".btn");
⌄   <button class="btn" style=":active: color:red;">Click Me</button>

> document.querySelector("li a");
⌄   <a href="http://www.google.com">Google</a>

> document.querySelector("a");
⌄   <a href="http://www.google.com">Google</a>

> document.querySelector("li.item");
⌄ null

> document.querySelector(".item");
⌄ null

> //Change class name to item to get result instead of null

⌄ undefined
```
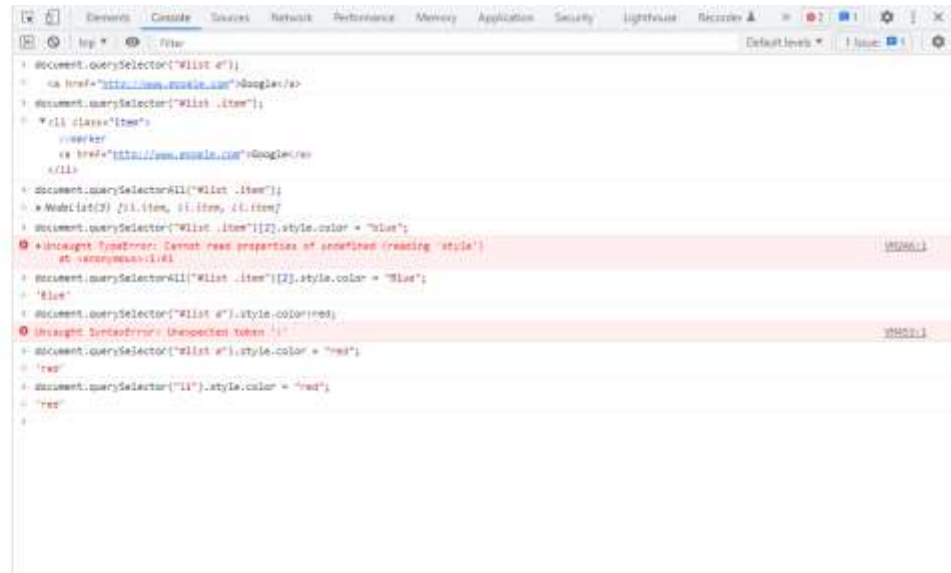
Above code is now improved. So don't try to change anything.

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```
> document.querySelector("#list a");
<·    <a href="http://www.google.com">Google</a>
> document.querySelector("#list .item");
<·  ▼<li class="item">
        ::marker
        <a href="http://www.google.com">Google</a>
      </li>
> document.querySelectorAll("#list .item");
<·  ▶NodeList(3) [li.item, li.item, li.item]
> document.querySelector("#list .item")[2].style.color = "blue";
⊗ ▶Uncaught TypeError: Cannot read properties of undefined (reading 'style')
        at <anonymous>:1:41
> document.querySelectorAll("#list .item")[2].style.color = "Blue";
<· 'Blue'
> document.querySelector("#list a").style.color:red;
⊗ Uncaught SyntaxError: Unexpected token ':'
> document.querySelector("#list a").style.color = "red";
<· 'red'
> document.querySelector("li").style.color = "red";
<· 'red'
>
```

Code:

<!DOCTYPE html>

<html lang="en" dir="ltr">

 <head>

  <meta charset="utf-8">

  <title>My Website</title>

  <link rel="stylesheet" href="css/styles3.css">

 </head>

 <body>

  <h1 id="title">Hello</h1>

  <input type="checkbox">

  <button class="btn" style=":active: color:red;" >Click Me</button>

```html
<!-- Add list -->
<ul id = "list">
  <li class="item">
    <a href="http://www.google.com">Google</a>
  </li>
  <li class="item">Second</li>
  <li class="item">Third</li>
</ul>


<script src="index3.js" charset="utf-8"></script>
</body>
</html>
```