Date: 08-6-2020
Morning Session: 9am – 11 PM
By ~ Sundeep Charan Ramkumar Today

Topics: DOM - PART 2

How to create an element & put it inside an HTML document.

There are 3 ways :

1) **Inject a text node**

2) **Inject a HTML element itself**

3) **Inject a HTML in Strings**

These three let you add something to your HTML document.

There are 3 ways to inject a text node

1) **Text content**

2) **Inner text**

(both text content and inner text both these both allow a element tp inject or to retrieve text node inside element itself)

3) **Inner HTML (allows you to enter HTML itself)**

But all three things should be inside (" ").

All 3 things will rap within the code and then only inject inside DOM.

1) **Text content :**

```
h1Tag.textContent = h1Tag.textContent + " DOM - CRUD Operations";
```

Replace text:

```
h1Tag.textContent = "DOM - CRUD Operations"
```

```
h1Tag.textContent = h1Tag.textContent + " DOM - CRUD Operations";
```

```
h1Tag.textContent = "<div>DOM - CRUD Operations</div>";
```

When ever HTML tag itself printed that moment you should understand that it didn't analyse proper HTML element.

If you change to innerHTML

```
h1Tag.innerHTML = "<div>DOM - CRUD Operations</div>";
```

Div tag not visible.

```
h1Tag.innerHTML = null;
```

Elements are still present but the text content inside will be not present.

Inserting HTML element:

```
// Inserting HTML Elements
var divElement = document.createElement("div"); // <div></div>
var ulTag = document.createElement("ul"); // <ul></ul>
```

Append (add at end of tag)
Prepend(after the opening tag)
Insert adjacent element (before end, before begin, after end, after begin)

Appending child element: (adding before closing tag)

Syntax: parentElement.append(childElement)

```
divElement.append(ulTag);

console.log(divElement);
```

Result :

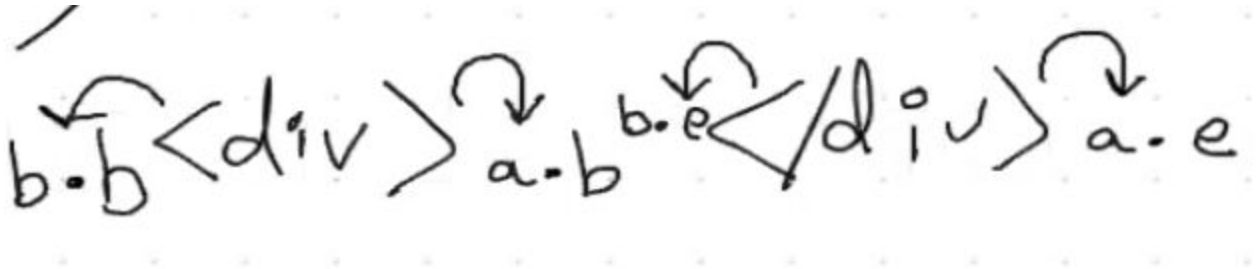

```
var divElement = document.createElement("div"); // <div></div>
var ulTag = document.createElement("ul"); // <ul></ul>
var liELement1 = document.createElement("li"); // <li></li>
liELement1.textContent = "List Item 1"; // <li>List Item 1</li>
ulTag.appendChild(liELement1); // <ul><li>List Item 1</li></ul>
divElement.append(ulTag); // <div><ul><li>List Item 1</li></ul></div>
console.log(divElement);
```

```
▼<div>
  ▼<ul>
      <li>List Item 1</li>
    </ul>
  </div>
```

prepending child element: (adding before closing tag)

Syntax: parentElement.prepend(childElement)

Insert adjacent element: (beforeBegin, beforeEnd, afterBegin, afterEnd)



Afterbegin:

```
var something = document.querySelector(".something");
var liELement1 = document.createElement("li"); // <li></li>
liELement1.textContent = "List Item 1"; // <li>List Item 1</li>
something.insertAdjacentElement("afterbegin", liELement1); // <uL><li>List item 1</
li></uL>
```

Beforebegin:

```
var something = document.querySelector(".something");
var liELement1 = document.createElement("li"); // <li></li>
liELement1.textContent = "List Item 1"; // <li>List Item 1</li>
something.insertAdjacentElement("beforebegin", liELement1); // <uL><li>List item 1</
li></uL>
```

Beforeend:

```
var something = document.querySelector(".something");
var liELement1 = document.createElement("li"); // <li></li>
liELement1.textContent = "List Item 1"; // <li>List Item 1</li>
something.insertAdjacentElement("beforeend", liELement1); // <uL><li>List item 1</
li></uL>
```

Afterend:

```
var something = document.querySelector(".something");
var liELement1 = document.createElement("li"); // <li></li>
liELement1.textContent = "List Item 1"; // <li>List Item 1</li>
something.insertAdjacentElement("afterend", liELement1); // <uL><li>List item 1</
li></uL>
```

Insert HTML as strings:

```
// Insert HTML as strings
var htmlBlock = `
  <div class="htmlblock">
    <p style="color: red; background: green;">lorem ipsum generator text</p>
    <span>Hi there I am a span tag</span>
  </div>
`;

document.body.insertAdjacentHTML("afterbegin", htmlBlock);

console.log(typeof htmlBlock);
```

Inserthtml = innerhtml

But innerhtml for one line tags, if more than 5 tag better to use inserthtml

To get child element:

```
ulTag
 ▶<ul class="something">…</ul>
ulTag.children
▶HTMLCollection(4) [li, li, li, li]
ulTag.children[0]
   <li data-ksdfkjsfksdjfklsjfklsdjl="hi there">1</li>
var firstLiElement = ulTag.children[0]
undefined
firstLiElement
   <li data-ksdfkjsfksdjfklsjfklsdjl="hi there">1</li>
```

Way to get a value of custom attribute is 2 ways:

1) **getAttribute() , 2) dataset**

getAttribute:

```
something.children[0].setAttribute("name", "hello there");
```

dataSet:

```
something.children[0].dataset.weather = "rainy";
```

Classlist:

```
> var circle = document.createElement('div')
<· undefined
> circle
<·   <div></div>
> circle.classList
<· ▶ DOMTokenList [value: ""]
> circle.classList.add("circle")
<· undefined
> document.body.prepend(circle)
<· undefined
> circle.classList.remove("circle")
<· undefined
> circle.classList.add("circle")
<· undefined
> circle.classList.toggle("circle")
```

```
> circle.textContent = "I am a circle"
<- "I am a circle"
> circle.style
<- ▶ CSSStyleDeclaration {alignContent: "", alignItems: "", alignSelf: "", alignmentBaseline: "", all: "", …}
> circle.style.display = "flex"
<- "flex"
> circle.style
<- ▶ CSSStyleDeclaration {0: "display", alignContent: "", alignItems: "", alignSelf: "", alignmentBaseline: "", all: "", …}
> circle.style.alignItems = "center"
<- "center"
> circle.style.justifyContent = "center"
<- "center"
>
```

Remove an element:

```
var something = document.querySelector(".something");
something.children[1].remove();
```

Add multiple elements:

3rd method

```
var postList = document.createElement('ul')

for (post of posts) {
    var postItem = `
        <li data-id=${post.id}>
            <h3>${post.title}</h1>
            <p>${post.body}</p>
        </li>
    `
    postList.insertAdjacentHTML("beforeend", postItem)
}

document.body.append(postList)
```

2nd method

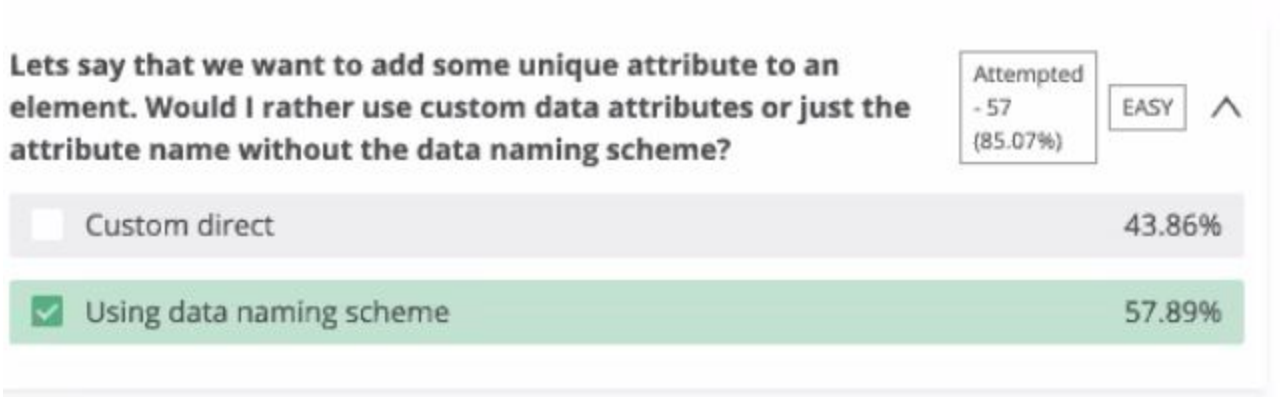
```
> var postList = document.createElement('ul')
<- undefined
> for (post of posts) {
      var postItem = document.createElement('li')
      postItem.dataset.id = post.id
      var postTitle = document.createElement('h3')
      postTitle.textContent = post.title
      var postBody = document.createElement('p')
      postBody.textContent = post.body

      postItem.appendChild(postTitle)
      postItem.appendChild(postBody)

      postList.appendChild(postItem)
  }
<-  ▶<li data-id="10">…</li>
> postList
<-  ▶<ul>…</ul>
> document.body.append(postList)
<- undefined
```

MCQ 1:

MCQ2:



MCQ3:

MCQ4: