香港科技大學
THE HONG KONG
UNIVERSITY OF SCIENCE
AND TECHNOLOGY

CREATING AND ADDING NODES

PROF. DAVID ROSSITER

THE DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
計算機科學及工程學系

AFTER THIS PRESENTATION

- You'll be able to create different types of nodes
- You'll be able to add nodes to a DOM

WE WILL LOOK AT

Creating a node	`createElement()`, `createTextNode()`
Adding a node	`insertBefore()`, `appendChild()`

ADDING TO THE WEB PAGE

First, create whatever you want to add

- whatever you create is not yet in the DOM

Second, add it at the desired place

CREATING NODES

Use `createElement()` e.g.

```
result = document.createElement("div");
```

For text nodes, use `createTextNode()` e.g.

```
result = document.createTextNode("Hello");
```

ADDING NODES - INSERTBEFORE()

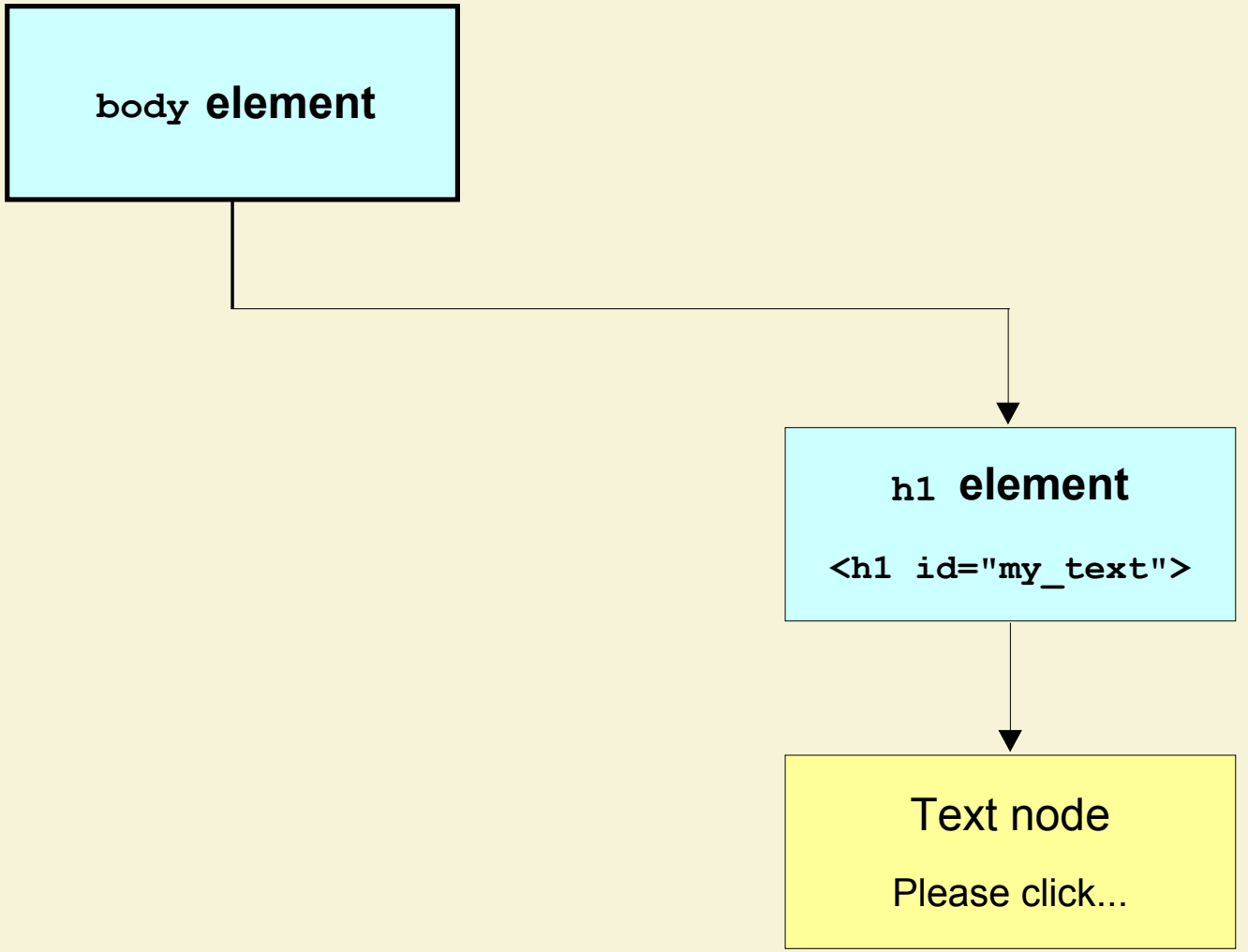
For example:

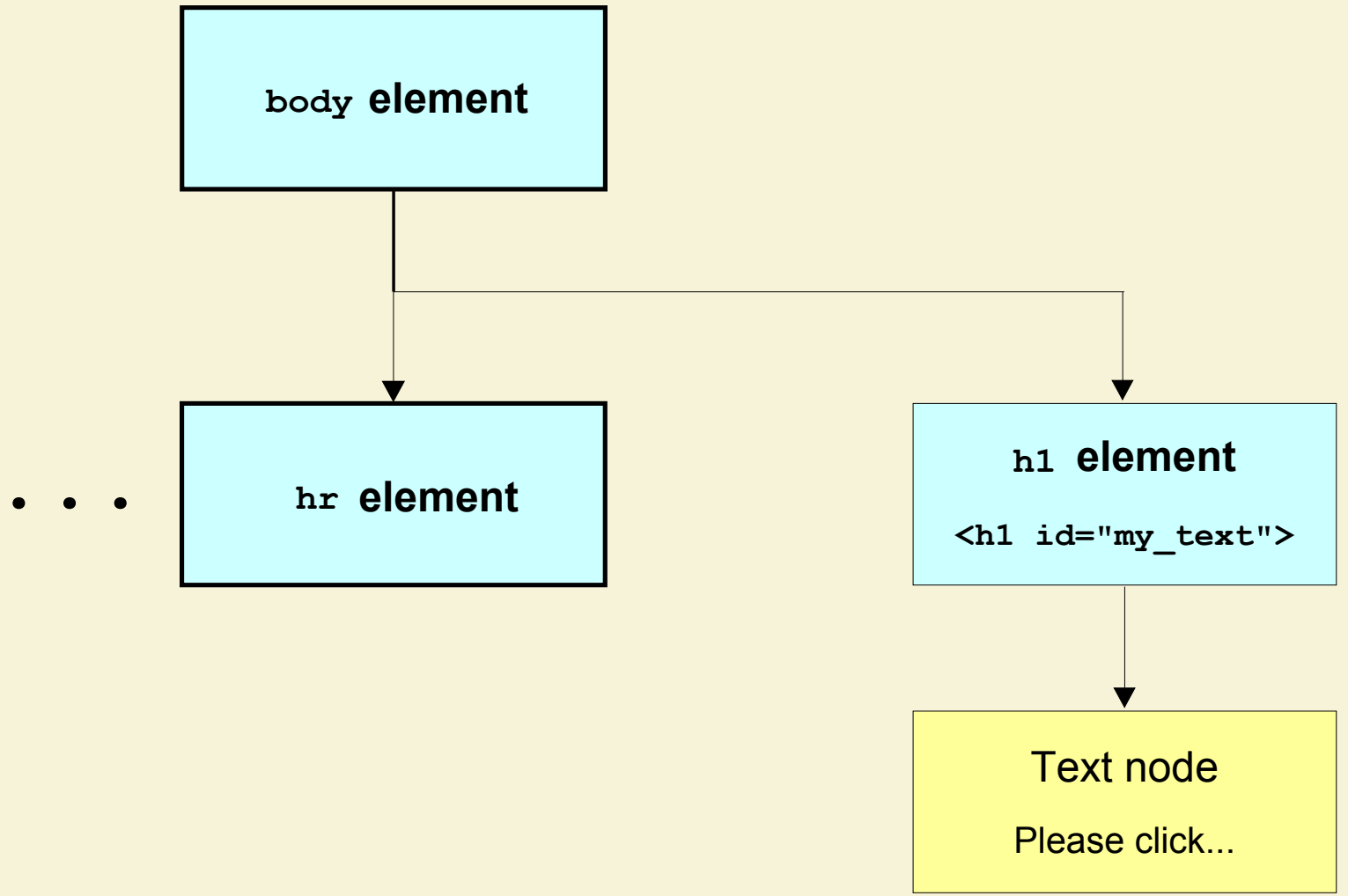
```
newItem = document.createElement("hr");

destParent = document
             .getElementsByTagName("body")[0];
destParent.insertBefore(
             newItem, destParent.firstChild);
```

Please click on the page

Click here to open the example


body element
h1 element
<h1 id="my_text">
Text node
Please click...


body element
hr element
h1 element
<h1 id="my_text">
Text node
Please click...

```
<!DOCTYPE html>
<html>
<head>
<script>
function insert_new_text() {
  var newItem=document.createElement("hr");

  var destParent=document.getElementsByTagName("body")[0];
  destParent.insertBefore(newItem, destParent.firstChild);
}
</script>
</head>
<body onclick="insert_new_text()">
<h1 id="my_text">Please click on the page</h1>
</body>
</html>
```

ADDING NODES - APPENDCHILD()

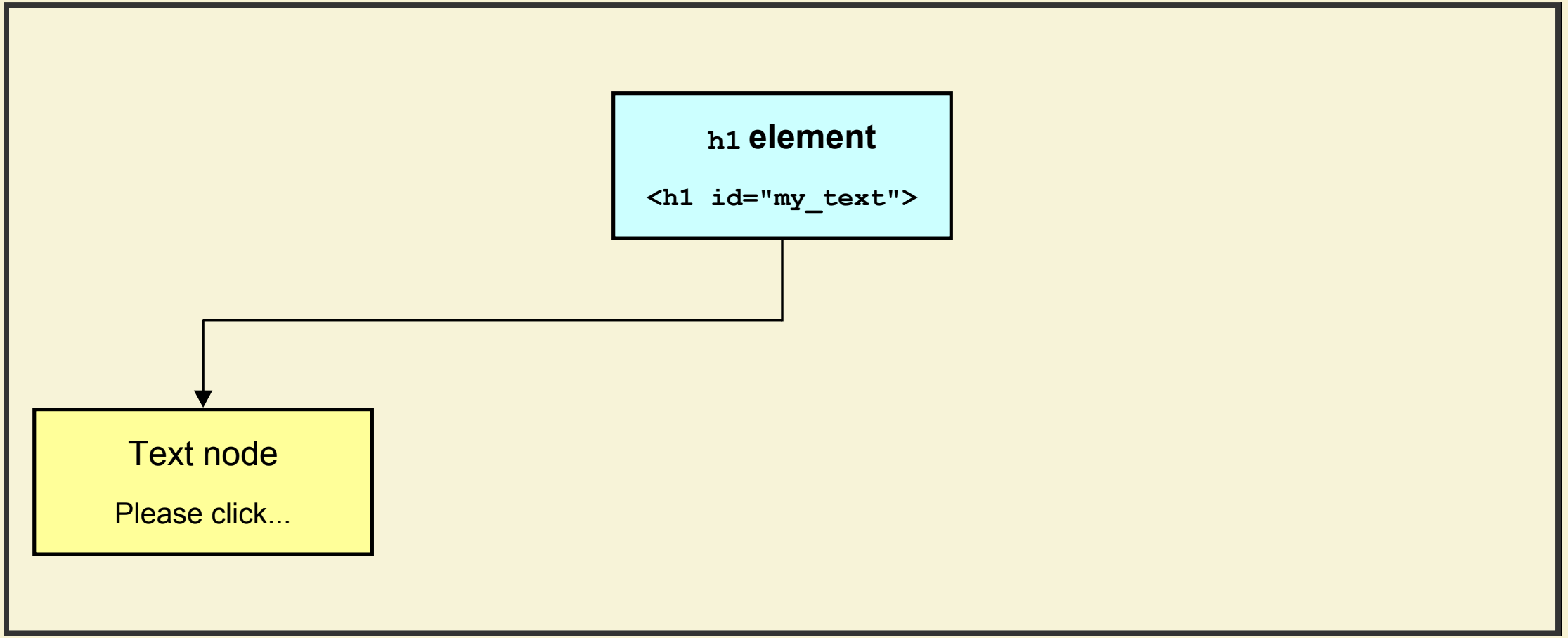
For example:

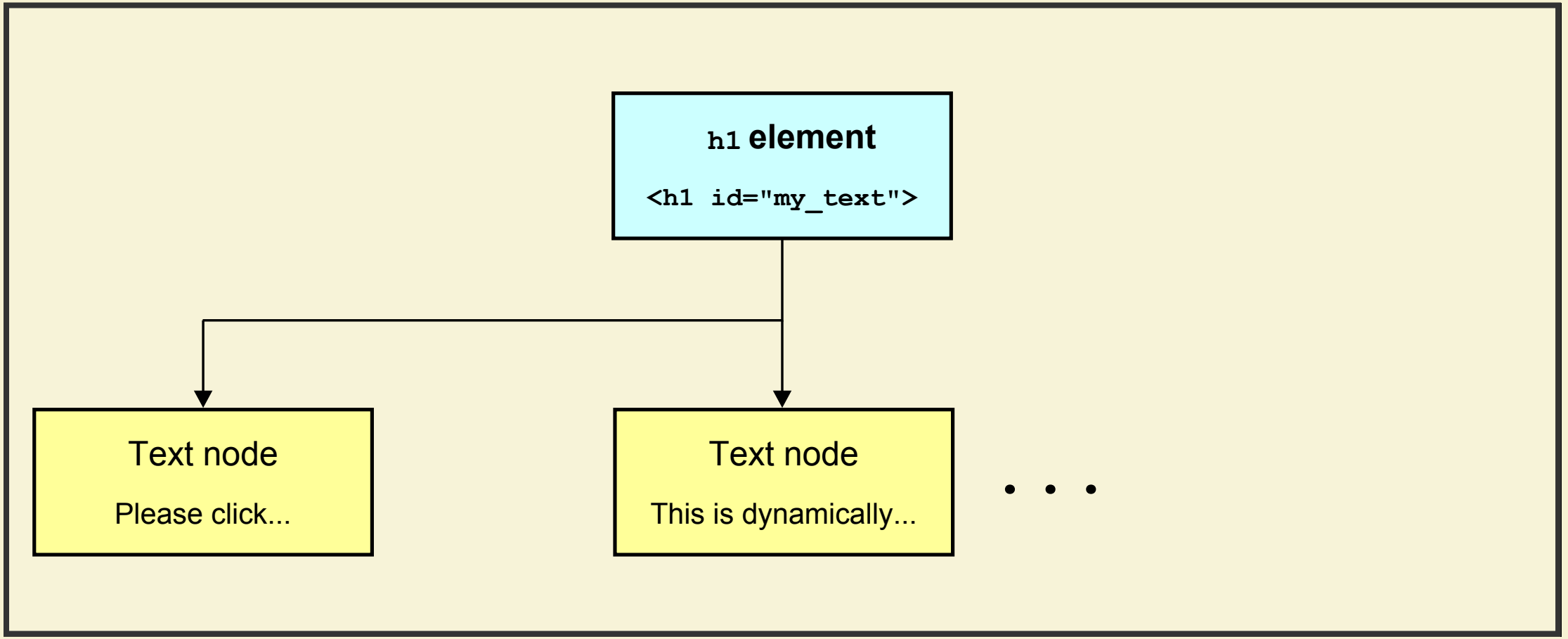
```
result=document.createTextNode(
            "This is dynamically added Text!");

document.getElementById("my_text")
        .appendChild(result);
```

Please click on the page

Click here to open the example


h1 element
<h1 id="my_text">
Text node
Please click...


h1 element
<h1 id="my_text">
Text node
Please click...
Text node
This is dynamically...
• • •

```
<!DOCTYPE html>
<html>
<head>
<script>
function insert_new_text()
{
    var newText = document.createTextNode(
        "This is dynamically added text!");
    var textpart = document.getElementById("my_text");
    textpart.appendChild(newText);
}
</script>
</head>
<body onclick="insert_new_text()">
<h1 id="my_text">Please click on the page</h1>
</body> </html>
```