

ICT-Start – Session 01

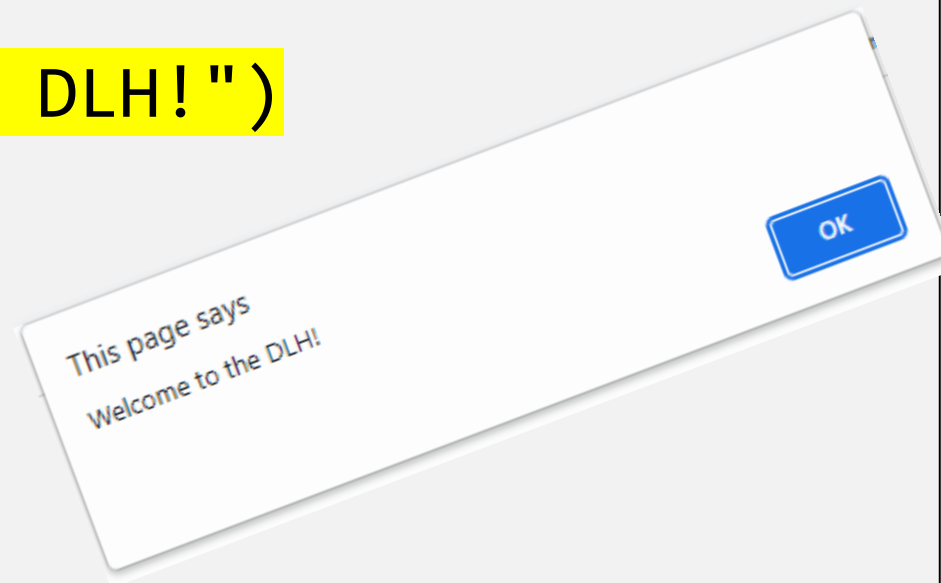
Module 3: Client-Side Scripting I Creating dynamic web pages

B) DOM and CSS Manipulation

December 2022

Basic Output: Alert window

```
<html>
<head>
  <script>
    alert("Welcome to the DLH!")
  </script>
</head>
<body></body>
</html>
```



Alert windows

- Interrupts the user surfing experience
- User needs to take action immediately
 - Should only be used in such a scenario
- Any idea for an alternative?

HTML Outputs

- Directly write **into** the HTML page

Writing to HTML



Try it!

```
<html>
<head>
  <script>
    var name = prompt("Enter your name:");

  </script>
</head>
<body> <div></div>
</body>
</html>
```

Writing to HTML



Try it!

```
<html>
<head>
  <script>
    var name = prompt("Enter your name:");

  </script>
</head>
<body> <div id="divOutput"></div>
</body>
</html>
```

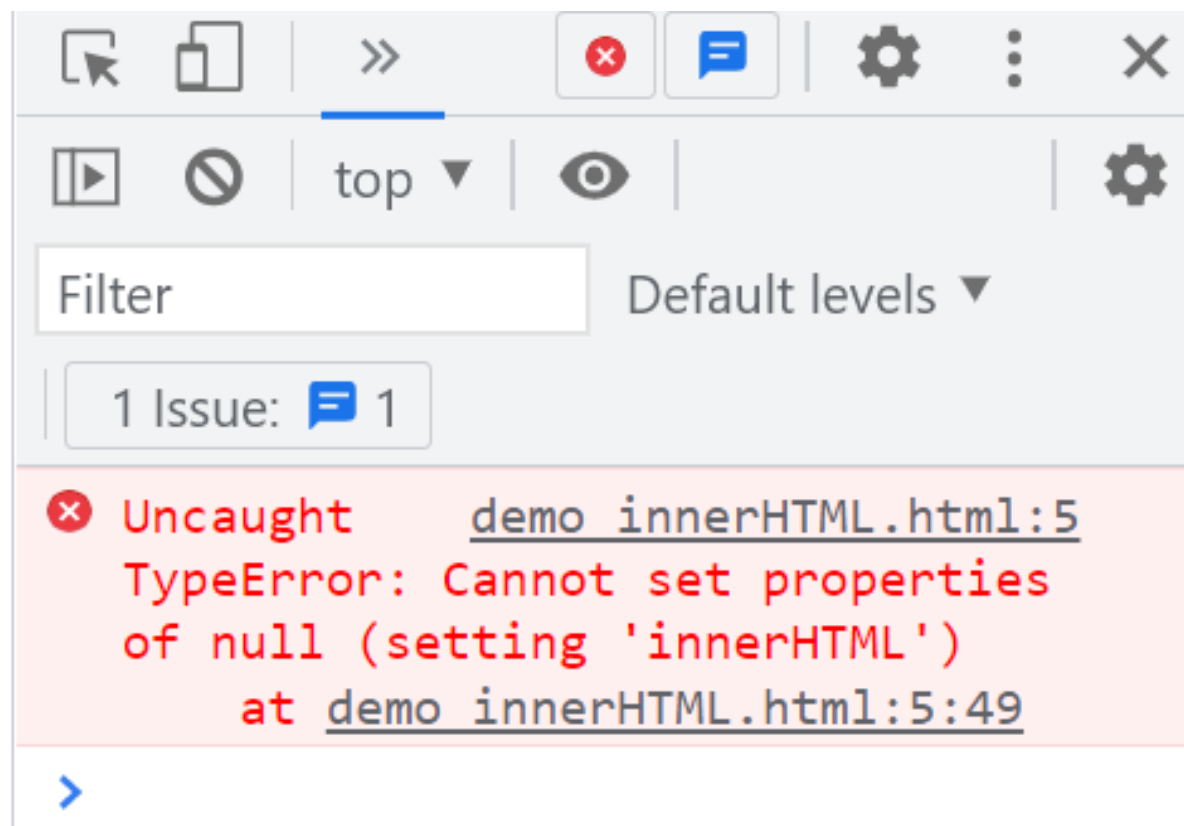
Writing to HTML



Try it!

```
<html>
<head>
  <script>
    var name = prompt("Enter your name:");
    document.getElementById("divOutput").innerHTML =
      "Hi "+name+"!";
  </script>
</head>
<body> <div id="divOutput"></div>
</body>
</html>
```

Oops!




Timing Problem

- Browser loads page
- Reads line per line and draws accordingly

Timing Problem

```
<html>
<head>
  <script>
    var name = prompt("Enter your name:")
    document.getElementById("divOutput").innerHTML =
      "Hi "+name+"!";
  </script>
</head>
<body> <div id="divOutput"></div>
</body>
</html>
```



Timing Problem

- Solution?
- => Wait for webpage to completely load
- => Use the body's **onload** property

The onload property

```
<html>
<head>
  <script>
    var name = prompt("Enter your name:");
    document.getElementById("divOutput").innerHTML =
                                "Hi "+name+"!";

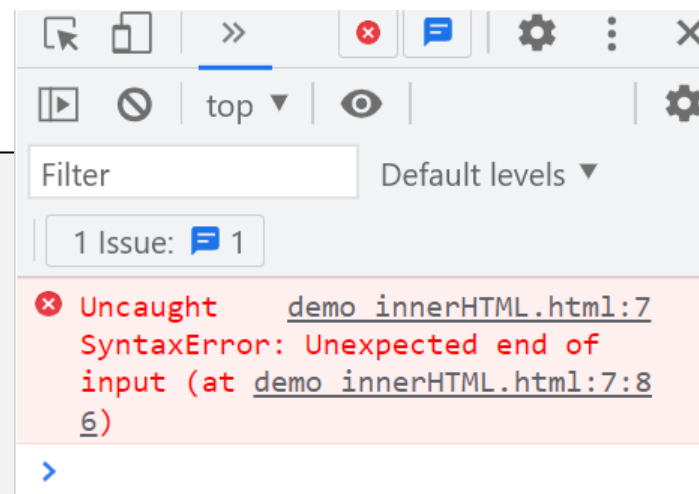
  </script>
</head>
<body onload="???"> <div id="divOutput"></div>
</body>
</html>
```

The **onload** property runs JavaScript!

```
<html>
<head>
  <script>
  </script>
</head>
<body onload="var name = prompt('Enter your name:');
  document.getElementById('divOutput').innerHTML = 'Hi '+name+'!';"> <div id="divOutput"></div>
</body>
</html>
```

Ehmm...

```
<html>
<head>
  <script>
  </script>
</head>
<body onload="var name = prompt("Enter your name:");
  document.getElementById("divOutput").innerHTML = "Hi
  "+name+"!";"> <div id="divOutput"></div>
</body>
</html>
```



Closing quotes...!

```
<html>
<head>
  <script>
  </script>
</head>
<body onload="var name = prompt("Enter your name:");
  document.getElementById("divOutput").innerHTML = "Hi
  "+name+"!";"> <div id="divOutput"></div>
</body>
</html>
```

Mix of double and single quotes

Try it!

```
<html>
<head>
  <script>
  </script>
</head>
<body onload='var name = prompt("Enter your name:")
  document.getElementById("divOutput").innerHTML = "Hi
  "+name+"!";'> <div id="divOutput"></div>
</body>
</html>
```


How do you like this solution?




Try it!

```
<html>
<head>
  <script>
  </script>
</head>
<body onload='var name = prompt("Enter your name:")
              document.getElementById("divOutput").innerHTML = "Hi
"+name+"!";'> <div id="divOutput"></div>
</body>
</html>
```

JavaScript in onload

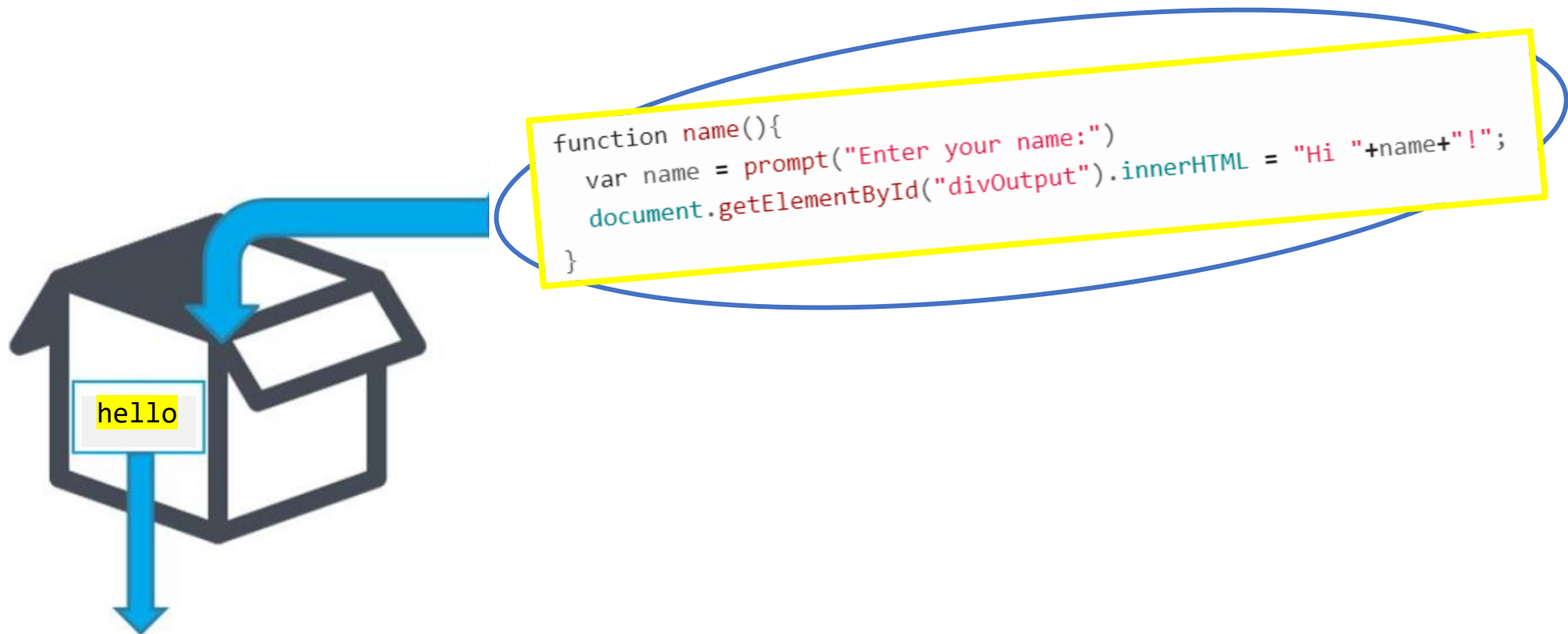
- Messy code!
- All in one ligne



```
1 <html>
2 <head>
3 <script>
4 <script>
5
6     name = prompt("Enter your name:")
7     document.getElementById("divOutput").innerHTML = "Hi "+name+"!";'> <div>
```

- JS is packed inside a string
- Editor loses highlighting feature
- ...

Separation of concerns!



```
<body onload=' hello() ' </body>
```

The correct usage!



Try it!

```
<html>
<head>
  <script>
    function hello(){
      var name = prompt("Enter your name:");
      document.getElementById("divOutput").innerHTML =
        "Hi "+name+"!";
    }
  </script>
</head>
<body onload="hello()"> <div id="divOutput"></div>
</body>
</html>
```

innerHTML can also generate new HTML



Try it!

```
<html>
<head>
  <script>
    function hello(){
      var name = prompt("Enter your name:");
      document.getElementById("divOutput").innerHTML =
        "<h1>Hi "+name+"!</h1>";
    }
  </script>
</head>
<body onload="hello()"> <div id="divOutput"></div>
</body>
</html>
```

Worksheet 2: A. HTML Outputs

- Solve the rest of the exercises (1-5) from the Worksheet 2.
- Download at <https://dlh.gashi.lu/js1/worksheets/>

Basic Input: prompt window

```
<html>
```

```
<head>
```

```
  <script>
```

```
    prompt
```

```
  </script>
```

```
</head>
```

```
<body></body>
```

```
</html>
```

Ugly!

```
name: ")
```

This page says
Please enter your name:

OK

Cancel

prompt windows

- Interrupts the user surfing experience
- User needs to take action immediately
- Should only be used in such a scenario
- Any idea for an alternative?
 - **Hint:** How do popular websites handle user inputs?

HTML Input's and Buttons

```
1  <!DOCTYPE html>
2  <html><head><script>
3      function greetClicked(){
4          var name = document.getElementById("inName").value
5          document.getElementById("divOutput").innerHTML = "Hi, "+name+"!";
6      }
7  </script>
8  </head><body>
9      <input type="text" id="inName"><br>
10     <button type="button" onclick="greetClicked()">Greet</button>
11     <br>
12     <div id="divOutput"></div>
13 </body></html>
```

Hi, Mickey!

Worksheet 2: B. HTML Inputs

- Solve the rest of the exercises (6-10) from the Worksheet 2.