



Website development

Lecture 1

JavaScript

JavaScript is a programming language that allows you to implement complex features on web pages.

With **JavaScript**, a web page does more than just “sit” there, such as timely content updates, interactive maps, animated 2D/3D graphics, and much more.

JavaScript is one of the 3 fundamental languages of the website development.

JavaScript example

```
p {
  font-family: "helvetica neue", sans-serif;
  text-transform: uppercase;
  text-align: center;
  border: 2px solid rgba(0, 0, 200, 0.6);
  background: rgba(0, 0, 200, 0.3);
  color: rgba(0, 0, 200, 0.6);
  border-radius: 10px;
  padding: 3px 10px;
  display: inline-block;
  cursor: pointer;
}
```

<p>Player name:</p>

```
<script>
  const para = document.querySelector("p");

  para.addEventListener("click", updateName);

  function updateName() {
    const name = prompt("Enter a new name");
    para.textContent = `Player name: ${name}`;
  }
</script>
```

JavaScript example

```
<!DOCTYPE html>
<html>
<body>

<h2>My JavaScript</h2>

<button type="button"
onclick="document.getElementById('demo').innerHTML = Date()">
Get time</button>

<p id="demo"></p>

</body>
</html>
```

getElementById()

getElementById() - method selects an element with a given id.

innerHTML - defines the content of the selected element.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p id="demo">Hello world!</p>
```

```
<button type="button"
```

```
onclick='document.getElementById("demo").innerHTML = "Hello  
JavaScript!"'>Click me!</button>
```

```
</body>
```

```
</html>
```

getElementById()

We can change not only the content but also the attributes of the selected element.

To do this, write the name of the attribute with a dot after
getElementById('id').

```
document.getElementById('myID').attributeName="value"
```

```
<button  
  onclick="document.getElementById('myImage').src='images/bulb_off.gif'">
```

getElementById()

We can also change style of the selected element

```
document.getElementById( 'myID' ).style.cssProperty="value"
```

```
<button  
  onclick="document.getElementById( 'myPara' ).style.textAlign='center' ">
```

getElementsByTagName()

Selects all elements with the given tag name. Returns as an array.

```
<button  
  onclick="document.getElementsByTagName('p')[0].style.textAlign='center'">
```


querySelector() & querySelectorAll()

querySelector() method returns the first element that matches the CSS selector.

querySelectorAll() method returns all elements that match the CSS selector.

<script>

In HTML, JavaScript code is placed between the <script> element

```
<script> document.getElementById("demo").innerHTML = "PDP  
University"; </script>
```

Javascript code can also be placed in an external file. In this approach, the reference to the external file is placed inside the <head> element. This approach is the most professional approach:

```
<script src="script.js"></script>
```

To avoid blocking the execution of our HTML code until the external JavaScript receives the file, we need to include the "defer" keyword.

```
<script src="script.js" defer></script>
```

Thank you for your attention