

Workshop 1 – Basic JavaScript Application

Topics:

1. HTML:
 - DOM
 - HTML elements and attributes
2. CSS
 - Adding style
 - Bootstrap
3. JavaScript
 - Adding JavaScript
 - Variables
 - Functions
 - Arrays
 - Objects

Prerequisites:

1. IDE WebStorm
2. GIT
3. Chrome Browser

Demo:

1. Create new project in WebStorm('frontdev');
2. Create HTML file 'index.html';
3. The file 'index.html' has the following content:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Demo HR</title>
</head>
<body>
```

```
<h1>HR Home Page</h1>
<p>This is the home page of our HR application</p>
<div id="pagedescription">
    Here you can access the list of employees or you can access the page
    for adding a new employee.
</div>
</body>
</html>
```

4. In WebStorm right-click on 'index.html' file: Open in browser -> Chrome
5. We see in browser our html page:



HR Home Page

This is the home page of our HR application

Here you can access the list of employees or you can access the page for adding a new employee

6. On <p> element we add the 'style' attribute the font color and size:

```
<p style="font-size: 20px; color: #FF0000;">This is the home page of our HR
application</p>
```
7. Inside the <head> element we add a <style> element where we change the color for H1 elements:

```
<style type="text/css">
    h1 {
        color: #0000FF;
    }
</style>
```
8. Now our page looks like this:



HR Home Page

This is the home page of our HR application

Here you can access the list of employees or you can access the page for adding a new employee.

9. For adding external CSS files we create a new folder 'css' and inside it we create a file 'main.css' with the following content:

```
.description {  
    text-align: center;  
    color: #330099;  
}
```

10. We load the external CSS file inside our HTML page. Inside the <head> attribute we add:

```
<link rel="stylesheet" type="text/css" href="css/main.css" />
```

11. We add the created CSS class on our<div> element:

```
<div id="pagedescription" class="description">
```

12. We add Bootstrap CSS framework :

```
<link rel="stylesheet" type="text/css"  
href="//maxcdn.bootstrapcdn.com/bootstrap/3.2.0/css/bootstrap.min.css" />
```

13. We add a HTML list with a link to our listing page:

```
<div id="appmenu" class="description">  
    <ul class="list-group">  
        <li class="list-group-item"><a href="list.html">Employees  
list</a></li>  
    </ul>  
</div>
```

14. The page will look like this:



HR Home Page

This is the **home page** of our **HR application**

Here you can access the list of employees or you can access the page for adding a new employee.

[Employees list](#)

[Add employee](#)

15. We add 2 buttons:

```
<div class="btn-group">
  <button type="button" onclick="showMenu()" class="btn btn-
default">Show Menu</button>
  <button type="button" onclick="hideMenu()" class="btn btn-
default">Hide Menu</button>
</div>
```

16. We define 2 JavaScript functions:

```
<script type="text/javascript">
  function showMenu() {
    document.getElementById("appmenu").style.display = 'block';
  }
  function hideMenu() {
    document.getElementById("appmenu").style.display = 'none';
  }
</script>
```

17. We create a new HTML file 'list.html':

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Demo HR</title>
  <link rel="stylesheet" type="text/css"
href="//maxcdn.bootstrapcdn.com/bootstrap/3.2.0/css/bootstrap.min.css"/>
  <link rel="stylesheet" type="text/css" href="css/main.css"/>
  <script type="text/javascript" src="scripts/app.js"></script>
</head>
<body>
<h1>HR Employees List Page</h1>
```

```

<div class="panel panel-default">
  <div class="panel-heading description">
    Employees list
  </div>
  <div class="panel-body">
    <div>
      <p>
        <button onClick="showList()">Show List</button>
      </p>
    </div>
    <div id="listcontainer">
      </div>
    </div>
    <div>
      <a href="index.html">Back to Home Page</a>
    </div>
  </body>
</html>

```

18. We create the folder 'scripts' and inside it we create the file 'app.js':

```

var employeesList = [
  {
    firstName: 'John',
    lastName: 'King',
    phone: '0123456789',
    salary: 4500
  },
  {
    firstName: 'Steven',
    lastName: 'Gerard',
    phone: '0123456789',
    salary: 4500
  },
  {

```

```
firstName: 'Diana',
lastName: 'Ross',
phone: '0123456789',
salary: 4500
```

```
},
{
```

```
  firstName: 'Mike',
  lastName: 'Bob',
  phone: '0123456789',
  salary: 4500
```

```
},
{
```

```
  firstName: 'Emily',
  lastName: 'Hudson',
  phone: '0123456789',
  salary: 4500
```

```
  }
];
```

```
function showList() {
  var myTable = '<table border="1"><tr><th>First Name</th><th>Last Name</th><th>Phone</th><th>Salary</th></tr>';
  for(var i in employeesList) {
    myTable +=
    '<tr><td>' + employeesList[i].firstName + '</td><td>' + employeesList[i].lastName + '</td><td>' + employeesList[i].phone + '</td><td>' + employeesList[i].salary + '</td></tr>';
  }
  myTable += '</table>';
  var container = document.getElementById('listcontainer');
  container.innerHTML = myTable;
}
```

19. Inside 'app.js' we add:

```
var Employee = function (firstName, lastName, phone, salary) {
  this.firstName = firstName;
```

```

    this.lastName = lastName;
    this.phone = phone;
    this.salary = salary;
}

function addEmployee() {
    var firstName = document.getElementById("firstName").value;
    var lastName = document.getElementById("lastName").value;
    var phone = document.getElementById("phone").value;
    var salary = document.getElementById("salary").value;
    employeesList.push(new Employee(firstName, lastName, phone,
    salary));
}

```

20. Inside 'list.html' we add:

```

<div class="panel panel-default">
  <div class="panel-heading description">
    Add employee
  </div>
  <div class="panel-body">
    <p>
      First Name: <input type="text" id="firstName"/>
    </p>
    <p>
      Last Name: <input type="text" id="lastName"/>
    </p>
    <p>
      Phone: <input type="text" id="phone"/>
    </p>
    <p>
      Salary: <input type="number" id="salary"/>
    </p>
    <p>
      <button onclick="addEmployee()">Add employee</button>
    </p>
  </div>

```

</div>

Exercises:

1. Refresh the employees list automatically when we add a new employee;
2. Add table style from Bootstrap(<http://getbootstrap.com/css/#tables>);
3. Create a new button with the label 'Salary total'. When the button is pressed create a new HTML element on page which displays the sum of salaries;
4. Create a new button with the label 'Delete last employee'. When the button is pressed the last employee from the 'employeeList' array will be deleted;