# Department of Computing

**CS-213: Advanced Programming**

**Class: BSCS 7AB**

# Lab 2: Javascript

**Date: 12 September, 2019**

**Time: 10:00-01:00pm & 02:00-05:00pm**

# Instructor: Dr. Sidra Sultana

**Lab Engineer: Ms. Ayesha Asif**

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# Lab 2: Javascript

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| Solution |
| Task Code:  <!DOCTYPE html>  <html>  <head>  <title> calculator </title>  <style type="text/css">  \*{  margin-left: 15%;  margin-right: 15%;  margin-top: 3%;  font-family: 'Raleway', sans-serif;  }  #solution{  margin-right: 3%;  width: 500px;  height: 55px;  background-color: #0A0A0A;  text-align: left;  color: white;  font-size: 30px;  }  .box{  width: 100px;  height: 50px;  background-color: gray;  border : 1px solid black;  text-align: center;  color: black;  font-size: 30px;  }  .box1{  width: 100px;  height: 50px;  background-color: #34495E;  border : 1px solid black;  text-align: center;  color: white;  font-size: 30px;  }  #equalss{  background-color: #515A5A;  }  #C{  background-color: #626567;  }  .box:hover{  background-color: #FF251A;  }  .box1:hover{  background-color: #A3EAF3;  }  h1{  text-align: center;  }  </style>  </head>  <body>  <h1> This is the simplest calculator ever </h1>  <table border="2" >  <tr>  <td colspan="5" id="solution"></td>  </tr>  <tr>  <td class="box" id='Memclear'>MC</td>  <td class="box button" data-num='0'>0</td>  <td class="box button" data-num='1'>1</td>  <td class="box button" data-num='2'>2</td>  <td class="box1 button" id="multiply" data-num='+'>+</td>    </tr>  <tr>  <td class="box" id='memstore'>MS</td>  <td class="box button" data-num='3'>3</td>  <td class="box button" data-num='4'>4</td>  <td class="box button" data-num='5'>5</td>  <td class="box1 button" id="subtract" data-num='-'>-</td>  </tr>  <tr>  <td class="box" id='memread'>MR</td>  <td class="box button" data-num='6'>6</td>  <td class="box button" data-num='7'>7</td>  <td class="box button" data-num='8'>8</td>  <td class="box1 button" id="multiply" data-num='\*'>\*</td>  </tr>  <tr>  <td class="box" id='mplus'>M+</td>  <td class="box button" data-num='9'>9</td>  <td class="box" id='neg'>±</td>  <td class="box" id="equals">=</td>  <td class="box1 button" id="divide" data-num='/'>/</td>    </tr>  <tr>  <td class="box button" id="den">1/x</td>  <td class="box button" data-num='.'>.</td>  <td class="box button" id="square">x2</td>  <td class="box button" id="sqroot">√</td>  <td class="box" id="C">C</td>  </tr>  </table>  <script type="text/javascript">  const buttons = document.querySelectorAll('.button');  const solution = document.getElementById('solution');  const equals = document.getElementById('equals');  const C = document.getElementById('C');  const sqroot = document.getElementById('sqroot');  const square = document.getElementById("square");  const den = document.getElementById("den");  const memread = document.getElementById("memread");  const memstore = document.getElementById("memstore");  const Memclear = document.getElementById("Memclear");  const Mplus = document.getElementById("mplus");  const negative= document.getElementById("neg");  buttons.forEach(function(btn){  btn.addEventListener('click' , function(){  let number = btn.getAttribute('data-num');  solution.innerHTML += number;  });    });  document.addEventListener('keydown', function(event){  if(event.key == 'Enter'){equalsHandler();}  if(event.key == 'C' || event.key == 'c'){CHandler();}  let arr = ['1','2','3','4','5','6','7','8','9','0' , '+','-','\*','/'];  if(arr.indexOf(event.key) >= 0){  solution.innerHTML += event.key;  }  });  equals.addEventListener('click' , equalsHandler);  function equalsHandler(){  let value1 = eval(solution.innerHTML);  solution.innerHTML = value1;    }  C.addEventListener('click' , CHandler);  function CHandler(){  solution.innerHTML = " ";  };  sqroot.addEventListener('click' , squareRoot);  function squareRoot() {  x = parseInt(solution.innerHTML);  solution.innerHTML = Math.sqroott(x);  }  square.addEventListener('click' , square1);  function square1(){  x = parseInt(solution.innerHTML);  solution.innerHTML = Math.pow(x,2);  }  den.addEventListener('click' , denm);  function denm(){  x = parseInt(solution.innerHTML);  solution.innerHTML = 1/x;  }  var M = 0;  memstore.addEventListener('click' , storeNumber);  function storeNumber(){  M = parseInt(solution.innerHTML);    }  memread.addEventListener('click' , readnumber);  function readnumber(){  solution.innerHTML = M;  }  Memclear.addEventListener('click' , Cnumber);  function Cnumber(){  M = 0;  solution.innerHTML = M;  }  Mplus.addEventListener('click' , mplus);  function mplus(){  M = M + parseFloat(solution.innerHTML);  }  negative.addEventListener('click' , nega);  function nega(){  solution.textContent= Number(solution.textContent) \* -1;  }  </script>  </body>  </html>  Task Output Screenshot: |

### Deliverables

Compile a single word document by filling in the solution part and submit this Word file on LMS. This lab grading policy is as follows: The lab is graded between 0 to 10 marks. The submitted solution can get a maximum of 5 marks. At the end of each lab or in the next lab, there will be a viva related to the tasks. The viva has a weightage of 5 marks. Insert the solution/answer in this document. You must show the implementation of the tasks in the designing tool, along with your complete Word document to get your work graded. You must also submit this Word document on the LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to Ms. Ayesha Asif: [ayesha.asif@seecs.edu.pk](mailto:ayesha.asif@seecs.edu.pk).