# 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**

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| Solution |
| Task Code:  <html>  <header>  <style>  table td{    padding: 0px;    }    button{  width: 70px;  height: 40px;  }    </style>        </header>  <body>  <h1> Calculator </h1>  <table bgcolor="gray">  <tr>  <th id="result" colspan="5" bgcolor="white" > </th>  </tr>  <tr>  <td><button id="mc">MC</button></td>  <td><button class="numbers">0</button></td>  <td><button class="numbers">1</button></td>  <td><button class="numbers">2</button></td>  <td><button class="operators">+</button></td>  </tr>  <tr>  <td><button id="ms" >MS</button></td>  <td><button class="numbers">3</button></td>  <td><button class="numbers">4</button></td>  <td><button class="numbers">5</button></td>  <td><button class="operators">-</button></td>  </tr>      <tr>  <td><button id="mr">MR</button></td>  <td><button class="numbers">6</button></td>  <td><button class="numbers">7</button></td>  <td><button class="numbers">8</button></td>  <td><button class="operators">\*</button></td>  </tr>      <tr>  <td><button id="madd">M+</button></td>  <td><button class="numbers">9</button></td>  <td><button id="negativeSign">+-</button></td>  <td><button id="final\_result">=</button></td>  <td><button class="operators">/</button></td>  </tr>      <tr>  <td><button class="operators">(1/x)</button></td>  <td><button id="point">.</button></td>  <td><button class="operators" >^2</button></td>  <td><button class="operators" >sqrt</button></td>  <td><button id="clear">C</button></td>  </tr>    </table>  <script>    var M;  var result = document.getElementById("result");  var buttons = document.querySelectorAll(".numbers");  var operators = document.querySelectorAll(".operators");  document.getElementById("clear").addEventListener("click", function(){  firstnum="";  secondnum="";  operator\_check=0;  result.innerHTML="";  })    var i = 0, length = buttons.length;  var length2 = operators.length;  var firstnum ;  var secondnum ="" ;  var operator\_check = 0;  var operator ;          for (i; i < length; i++) {  if (document.addEventListener) {  buttons[i].addEventListener("click", function() {  // use keyword this to target clicked button    console.log(this.textContent);  var temp = this.textContent;  console.log("s");  console.log(result.textContent);    var temp2 = result.textContent;    var final = temp2 + "" + temp;    result.innerHTML = final;  console.log(final);  if(operator\_check!=0){  secondnum = secondnum + "" + this.textContent;  console.log(secondnum);  }    });      }    }    point.addEventListener("click", function(){  result.innerHTML=result.innerHTML+".0";      })    negativeSign.addEventListener("click", function(){  result.innerHTML=-1\*parseInt(result.innerHTML);      })  ms.addEventListener("click", function(){      if(!Number.isNaN(Number(result.innerHTML))){  M = Number(result.innerHTML);      console.log("number stored = " + M);  }}  )    mc.addEventListener("click", function(){  M=0;  console.log("number cleared = " + M);  }  )      mr.addEventListener("click", function(){  result.innerHTML=M;  console.log("number recalled = " + M);  }  )    madd.addEventListener("click", function(){  M= M + Number(result.innerHTML);  result.innerHTML=M;    console.log("number added to the stored number = " + M);  }  )    result.addEventListener("click", function(){    result.innerHTML=eval(result.innerHTML);    console.log(" wow ");  }  )        for(j=0 ; j< length2 ; j++){  if (document.addEventListener) {  operators[j].addEventListener("click",function() {  // use keyword this to target clicked button  console.log(this.textContent);    if(operator\_check == 0){  operator\_check++;  firstnum = result.textContent;  }  operator = this.textContent;  final = firstnum + " " + operator;  result.innerHTML = final;  });    }}  document.getElementById("final\_result").addEventListener("click",function(){  var show;  switch(operator){    case '+':  show = Number(firstnum) + Number(secondnum) ;  result.textContent = result.textContent + " = " + show;  break;  case '-':  show = parseInt(firstnum) - parseInt(secondnum) ;  result.textContent = result.textContent + " = " + show;  break;  case '\*':  show = parseInt(firstnum) \* parseInt(secondnum) ;  result.textContent = result.textContent + " = " + show;  break;  case '/':  show = parseInt(firstnum) / parseInt(secondnum) ;  result.textContent = result.textContent + " = " + show;  break;  case "(1/x)":  show = 1/parseInt(firstnum);  result.textContent = result.textContent + " = " + show;  break;  case "^2":  show = parseInt(firstnum) \* parseInt(firstnum);  result.textContent = result.textContent + " = " + show;  break;  case "sqrt":  show=Math.sqrt(firstnum);  result.textContent=result.textContent+" = "+show;      }  })        </script>  </body>  </html>  Task Output Screenshot: |