



## Front End Technologies Week 4 Coding Assignment

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**Points possible:** 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

**Instructions:** In VS Code, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your JavaScript project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

### Coding Steps:

1. Using HTML, Bootstrap, and JavaScript create a single page website that contains the following:
  - a. A Bootstrap styled table representing your choice of data.
  - b. A Bootstrap styled form that allows a user to add a new row to the table when submitted.



# PRO-MINEO TECH

## Screenshots of Code:

### musicApp.js

```
For Week 4 HW > # musicApp.js > $ instrument
1 //
2 // Based on the Proximus Tech week 4 homework video code
3 //
4 class Instrument {
5   constructor(instrument, section) {
6     this.instrument = instrument;
7     this.section = section;
8   }
9 }
10
11 class Musician {
12   constructor(id, name, email) {
13     this.id = id;
14     this.name = name;
15     this.email = email;
16     this.instruments = [];
17   }
18   addMusician(musician) {
19     this.musician.push(musician);
20   }
21   deleteMusician(musician) {
22     let index = this.musician.indexOf(musician);
23     this.musician.splice(index, 1);
24   }
25 }
26 let musicians = [];
27 let musicianId = 0;
28
29 onlick('new-musician', () => {
30   musician.push(new Musician(musicId++, {value:'new-musician-name'}, {value:'new-musician-email'}));
31   let name = {value:'new-musician-name'};
32   drawDOM();
33   console.log('Musician created: ' + name);
34 });
35
36 // 2021-10-25-Test-madhus - Instructor: Jeff Huggs
37 // 12/21/21 Class Example
38 // Jeff Huggs shows us how to do email validation in class
39 // I cloned some of his code here.
40 let emailText = document.getElementById('new-musician-email');
41
42 let emailAddress = document.getElementById('new-musician-email');
43 emailAddress.addEventListener('keyup', () => {
44   if (!/[a-zA-Z0-9@._-]+@.+/i.test(emailAddress.value)) {
45     emailText.innerHTML = 'Email address incorrect';
46     emailText.setAttribute('style', 'color:red');
47   } else {
48     emailText.innerHTML = 'NOT a valid Email format - keep trying!';
49     emailText.setAttribute('style', 'color:red');
50   }
51 });
52
53 // End of Jeff Huggs' code from class - with a few tweaks
54
55 function onlick(id, action) {
56   let element = document.getElementById(id);
57   element.addEventListener('click', action);
58   return element;
59 }
60
61 function getvalue(id) {
62   let returnValue = document.getElementById(id).value;
63   return returnValue;
64 }
65
66 function drawDOM() {
67   // clear the view, and redraw the table
68   let musicDiv = document.getElementById('musicians');
69   while (musicDiv.firstChild) {
70     musicDiv.removeChild(musicDiv.firstChild);
71   }
72   // for every musician in musicians
73   for (let musician of musicians) {
74     let table = createMusicTable(musician);
75     let title = document.createElement('h2');
76     title.innerHTML = musician.name;
77     title.appendChild(createDeleteMusicianButton(musician));
78     musicDiv.appendChild(title);
79     musicDiv.appendChild(table);
80     for (let instrument of musician.instruments) {
81       createInstrumentRow(musician, table, instrument);
82     }
83   }
84   document.getElementById('new-musician-name').value = '';
85   document.getElementById('new-musician-email').value = '';
86   emailText.innerHTML = 'For our use only!';
87   emailText.setAttribute('style', 'color:red');
88 }
89
90 function createMusicTable(musician) {
91   let table = document.createElement('table');
92   table.setAttribute('class', 'table table-primary table-striped m-2');
93   let row = table.insertRow();
94   let sectionColumn = document.createElement('th');
95   let sectionColumn = document.createElement('th');
96   let buttonColumn = document.createElement('th');
97   let sectionColumn.innerHTML = 'Instrument';
98   sectionColumn.innerHTML = 'Section';
99   buttonColumn.innerHTML = 'Delete';
100   row.appendChild(sectionColumn);
101   row.appendChild(sectionColumn);
102   row.appendChild(buttonColumn);
103   row.appendChild(buttonColumn);
104
105   let formRow = table.insertRow();
106   let sectionTh = document.createElement('th');
107   let sectionTh = document.createElement('th');
108   let createTh = document.createElement('th');
109   let createTh = document.createElement('th');
110
111   let instrumentInput = document.createElement('input');
112   instrumentInput.setAttribute('id', 'instrument-input-' + musician.id);
113   instrumentInput.setAttribute('type', 'text');
114   instrumentInput.setAttribute('class', 'form-control');
115
116   let sectionInput = document.createElement('input');
117   sectionInput.setAttribute('id', 'section-input-' + musician.id);
118   sectionInput.setAttribute('type', 'text');
119   sectionInput.setAttribute('class', 'form-control');
120
121   let createInstrumentButton = createNewInstrumentButton(musician);
122   instrumentTh.appendChild(instrumentInput);
123   sectionTh.appendChild(sectionInput);
124   createTh.appendChild(createDeleteInstrumentButton(musician));
125   formRow.appendChild(instrumentTh);
126   formRow.appendChild(sectionTh);
127   formRow.appendChild(createTh);
128   return table;
129 }
130
131 function createDeleteMusicianButton(musician) {
132   let btn = createButton('Delete Musician', 'btn btn-danger');
133   btn.onclick = () => {
134     let location = musician.indexOf(musician);
135     let deleteName = musician.name;
136     musicians.splice(location, 1);
137     drawDOM();
138     console.log('Musician deleted: ' + deleteName);
139   };
140   return btn;
141 }
142
143 function createInstrumentRow(musician, table, instrument) {
144   let row = table.insertRow();
145   row.innerHTML = instrument.name;
146   row.innerHTML = instrument.section;
147   let actions = row.innerHTML;
148   actions.appendChild(createDeleteButton(musician, instrument));
149 }
150
151 function createButton(btnLabel, className) {
152   let btn = document.createElement('button');
153   btn.className = className;
154   btn.innerHTML = btnLabel;
155   return btn;
156 }
157
158 function createNewInstrumentButton(musician) {
159   let btn = createButton('Create Instrument', 'btn btn-primary');
160   btn.onclick = () => {
161     musician.instruments.push(new Instrument({value:'new-instrument-name'}, {value:'new-instrument-section'}));
162     let name = {value:'new-instrument-name'};
163     drawDOM();
164     console.log('Instrument created: ' + name);
165   };
166   return btn;
167 }
168
169 function createDeleteInstrumentButton(musician, instrument) {
170   let btn = createButton('Delete Instrument', 'btn btn-danger');
171   btn.onclick = () => {
172     let location = musician.instruments.indexOf(instrument);
173     let deleteName = instrument.name;
174     musician.instruments.splice(location, 1);
175     drawDOM();
176     console.log('Instrument deleted: ' + deleteName);
177   };
178   return btn;
179 }
180 }
```



# PROMINEO TECH

index.html:

```
FW-Week4-HW > <> index.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <meta http-equiv="X-UA-Compatible" content="IE=edge">
6    <meta name="viewport" content="width=device-width, initial-scale=1.0">
7    <title>MusicApp -- FE Week3</title>
8    <link rel="stylesheet" href="node_modules/bootstrap/dist/css/bootstrap.css">
9    <link rel="stylesheet" href="main.css">
10 </head>
11 <body class="container m-2 rounded mx-auto d-block" >
12   <br>
13   <div class="card">
14     <div class="card-body">
15       <div class="row mx-auto justify-content:space-evenly">
16         <div class="col-sm">
17           <div class="form-group ">
18             <label for="new-musician-name">Musician Name</label>
19             <input type="text" class="form-control" id="new-musician-name" placeholder="NewMusicianName">
20           </div> <!-- end of form-group -->
21           <div class="form-group">
22             <label for="input-email" class="form-label">Email address</label>
23             <input type="email" class="form-control" id="new-musician-email" placeholder="NewMusicianEmail" aria-describedby="emailHelp">
24             <div id="emailHelp" class="form-text">For our use only!!!</div>
25           </div> <!-- end of form-group -->
26         </div> <!-- end col-sm -->
27       </div> <!-- end row -->
28     </div> <!-- end card-body -->
29   </div> <!-- end card -->
30
31   <div>
32     <button id="new-musician" class="btn btn-primary btn-hover form-control">Create Musician</button>
33   </div> <!-- end of button div -->
34 </div> <!-- end of card-body -->
35 </div> <br><!-- end card -->
36
37 <div id="musicians">
38
39 </div>
40
41 <script src="musicApp.js"></script>
42 <script src="node_modules/jquery/dist/jquery.js"></script>
43 <script src="node_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>
44
45 </body>
```

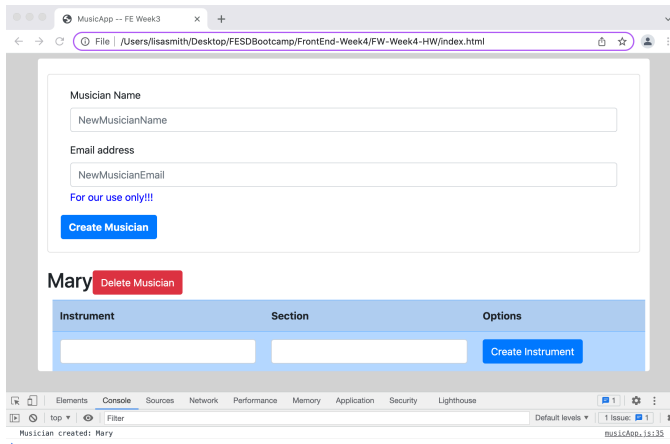
main.css:

```
FW-Week4-HW > # main.css > <html>
1  html {
2    background-color: lightgray;
3  }
4
5  .btn-hover {
6    color: #fff;
7    font-weight: bold;
8  }
```

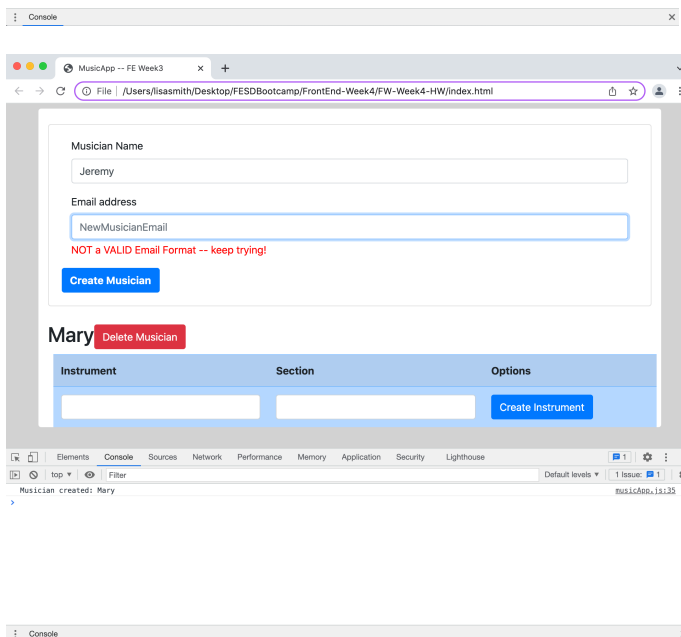


# PROMINEO TECH

## Screenshots of Running Application:



Musician 1 has been added, and placeholders in input boxes have been restored.



Notice red text while invalid email is being entered.



# PROMINEO TECH

MusicApp -- FE Week3

File | /Users/lisasmith/Desktop/FESDBootcamp/FrontEnd-Week4/FW-Week4-HW/index.html

Musician Name  
Jeremy

Email address  
j@gmail.com

Email address accepted!

Create Musician

Mary [Delete Musician](#)

Instrument	Section	Options
		Create Instrument

Elements Console Sources Network Performance Memory Application Security Lighthouse

top Filter Default levels 1 Issue: 1 MusicApp.13:33

Musician created: Mary

Resolved email format!

Console

MusicApp -- FE Week3

File | /Users/lisasmith/Desktop/FESDBootcamp/FrontEnd-Week4/FW-Week4-HW/index.html

Musician Name  
NewMusicianName

Email address  
NewMusicianEmail

For our use only!!!

Create Musician

Mary [Delete Musician](#)

Instrument	Section	Options
		Create Instrument

Jeremy [Delete Musician](#)

Instrument	Section	Options
		Create Instrument

Second musician has been added.



# PROMINEO TECH

MusicApp -- FE Week3

File | /Users/lisasmith/Desktop/FESDBootcamp/FrontEnd-Week4/FW-Week4-HW/index.html

Musician Name

NewMusicianName

Email address

NewMusicianEmail

For our use only!!!

Create Musician

Mary Delete Musician

Instrument	Section	Options
		Create Instrument
Trombone	Low Brass	Delete Instrument
Trumpet	Brass	Delete Instrument

Jeremy Delete Musician

Instrument	Section	Options
		Create Instrument
Tympani	Percussion	Delete Instrument

Three instruments are added.

MusicApp -- FE Week3

File | /Users/lisasmith/Desktop/FESDBootcamp/FrontEnd-Week4/FW-Week4-HW/index.html

Mary Delete Musician

Instrument	Section	Options
		Create Instrument
Trombone	Low Brass	Delete Instrument
Trumpet	Brass	Delete Instrument

Jeremy Delete Musician

Instrument	Section	Options
		Create Instrument
Tympani	Percussion	Delete Instrument

Elements Console Sources Network Performance Memory Application Security Lighthouse

top Filter

Default levels 1 Issue: 1

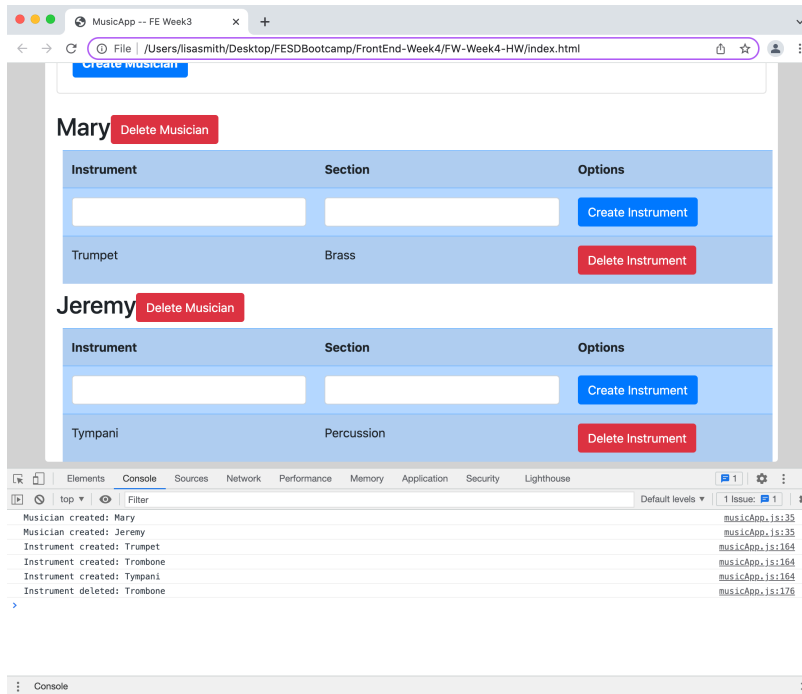
Musician created: Mary musicApp.js:35  
Musician created: Jeremy musicApp.js:35  
Instrument created: Trumpet musicApp.js:164  
Instrument created: Trombone musicApp.js:164  
Instrument created: Tympani musicApp.js:164

Console

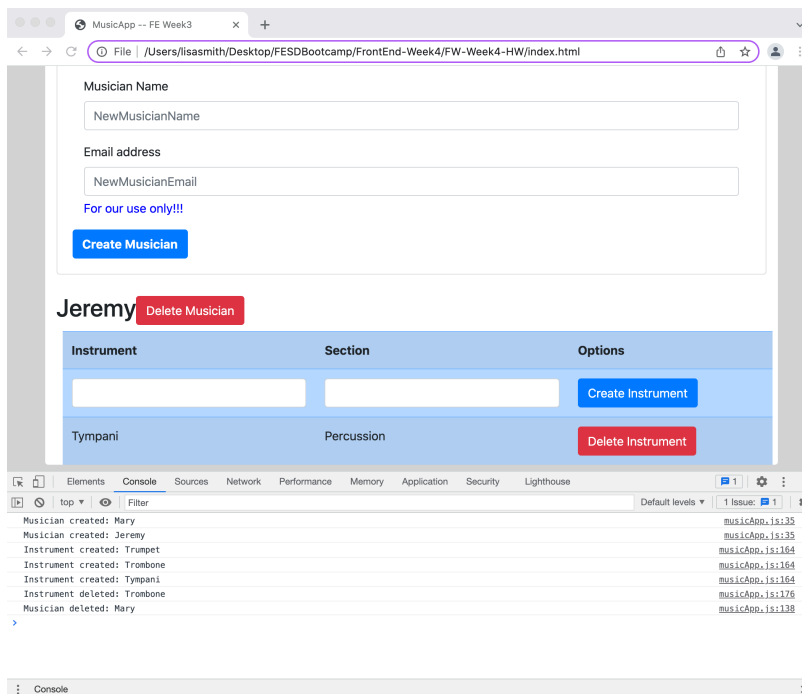
Notice console log of each item...



# PROMINEO TECH



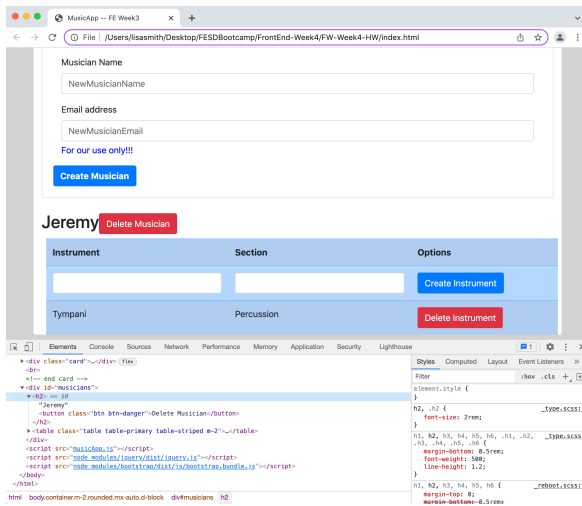
Pushed Delete Instrument button next to Trombone entry.



Pushed Delete Musician button next to Mary.



# PROMINEO TECH



Notice that only Jeremy remains — in the Elements section.

URL to GitHub Repository: <https://github.com/sw-dev-lisa-s-nh/FrontEnd-Week4>