

Review

Homework 4

Dynamic JavaScript + UI Widgets

Logging Paper Sales

Columbia Paper Infinity

Log your paper sales:

Client	# Reams	
James D. Halpert	Shake Shack	100 <input type="button" value="X"/>
Stanley Hudson	Toast	400 <input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000 <input type="button" value="X"/>

```
36 <body>
37 <div class="container">
38   <div class="jumbotron">
39     <h1>Columbia Paper Infinity</h1>
40   </div>
41   <div id="logsales" >
42     <div class="row">
43       <div class="col-md-2">
44         Log your paper sales:
45       </div>
46       <div class="col-md-4">
47         <div class="ui-widget">
48           <input type="text" id="enter_client" placeholder="Client" >
49         </div>
50       </div>
51       <div class="col-md-2">
52         <input type="text" id="enter_reams" placeholder="# Reams" >
53       </div>
54       <button class="btn btn-primary" id="submit_sale">Submit</button>
55     </div>
56     <br>
57     <div id="sales">
58     </div>
59   </div>
60 </div>
61 </body>
62 </div>
63 </div>
64 </body>
65
```

Autocomplete Client names

Log your paper sales:

Toast
Flat Top

```
36 <body>
37 <div class="container">
38   <div class="jumbotron">
39     <h1>Columbia Paper Infinity</h1>
40   </div>
41   <div id="logsales" >
42     <div class="row">
43       <div class="col-md-2">
44         Log your paper sales:
45       </div>
46       <div class="col-md-4">
47         <div class="ui-widget">
48           <input type="text" id="enter_client" placeholder="Client" >
49         </div>
50       </div>
51       <div class="col-md-2">
52         <input type="text" id="enter_reams" placeholder="# Reams" >
53       </div>
54       <button class="btn btn-primary" id="submit_sale">Submit</button>
55     </div>
56   </div>
57   <br>
58   <div id="sales">
59   </div>
60 </div>
61 </div>
62 </div>
63 </body>
64 </body>
65
```

1_log_sales.html

```
20
21 var clients = [
22   "Shake Shack",
23   "Toast",
24   "Computer Science Department",
25   "Teacher's College",
26   "Starbucks",
27   "Subconscious",
28   "Flat Top",
29   "Joe's Coffee",
30   "Max Caffe",
31   "Nussbaum & Wu",
32   "Taco Bell",
33 ];
34
35
36
37
38 $(document).ready(function(){
39   $( "#enter_client" ).autocomplete({
40     source: clients
41   });
42
43
```

1_log_sales.js

Load sales from data

Columbia Paper Infinity

Log your paper sales:

James D. Halpert

Shake Shack

100

Stanley Hudson

Toast

400

Michael G. Scott

Computer Science Department

1000

```
var sales = [
  {
    "salesperson": "James D. Halpert",
    "client": "Shake Shack",
    "reams": 100
  },
  {
    "salesperson": "Stanley Hudson",
    "client": "Toast",
    "reams": 400
  },
  {
    "salesperson": "Michael G. Scott",
    "client": "Computer Science Department",
    "reams": 1000
  },
]
```

```
66 var display_sales_list = function(sales){
67   $("#sales").empty()
68
69   if(sales.length == 0){
70     var row = $("<div class='row'>")
71     var col_client = $("<div class='col-md-4'>")
72     $(col_client).append("No Sales")
73     $("#sales").append(row)
74   }else {
75     $.each(sales, function(i, sale){
76
77       var row = $("<div class='row bottom_row_padding'>")
78       var col_salesperson = $("<div class='col-md-2'>")
79       $(col_salesperson).append(sale["salesperson"])
80       $(row).append(col_salesperson)
81
82       var col_client = $("<div class='col-md-4'>")
83       $(col_client).append(sale["client"])
84       $(row).append(col_client)
85
86       var col_reams = $("<div class='col-md-2'>")
87       $(col_reams).append(sale["reams"])
88       $(row).append(col_reams)
89
90       var col_salesperson = $("<div class='col-md-3'>")
91       var delete_button = $("<button class='btn btn-warning'>X</button>")
92       $(delete_button).click(function(){
93         //alert(i)
94         sales.splice(i, 1)
95         display_sales_list(sales)
96       })
97
98       $(col_salesperson).append(delete_button)
99       $(row).append(col_salesperson)
100
101       $("#sales").append(row)
102     })
103   }
104 }
105
106
107
108 }
```

Enter sale part 1 – Validate new sale data

Columbia Paper Infinity

Log your paper sales:

<input type="text" value="Toast"/>	<input type="text" value="6000"/>	<input type="button" value="Submit"/>
James D. Halpert	Shake Shack	100 <input type="button" value="X"/>
Stanley Hudson	Toast	400 <input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000 <input type="button" value="X"/>

```
38 $(document).ready(function(){
39
40     $("#submit_sale").click(function(){
41         submitSale()
42     })
43
44     $("#enter_reams").keypress(function(e){
45         if(e.which == 13) {
46             submitSale()
47         }
48     })
49
```

```
var submitSale = function(){
    var client = $("#enter_client").val()
    var reams = $.trim( $("#enter_reams").val() )

    if($.trim(client) == ""){
        alert("Hey! The client can't be empty!")
        $("#enter_client").val("")
        $("#enter_client").focus()
    }else if (reams == ""){
        alert("Hey! The # reams can't be empty!")
        $("#enter_reams").val("")
        $("#enter_reams").focus()
    }else if (!$.isNumeric(reams)){ //$.isNumeric( "-10" )
        alert("Hey! The # reams had to be a number!")
        //$("#enter_reams").val("")
        $("#enter_reams").focus()
    }else{

        var new_sale = {
            "salesperson": salesperson,
            "client": client,
            "reams": reams
        }

        addSale(new_sale)
    }
}
```

Enter sale part 2 – update data (Model + ViewController Style)

Columbia Paper Infinity

Log your paper sales:

Dwight K. Schrute	Toast	6000	<input type="button" value="X"/>
James D. Halpert	Shake Shack	100	<input type="button" value="X"/>
Stanley Hudson	Toast	400	<input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000	<input type="button" value="X"/>

```
2
3 var sales = [
4   {
5     "salesperson": "James D. Halpert",
6     "client": "Shake Shack",
7     "reams": 1
8   },
9   {
10    "salespers
11    "client":
12    "reams": 4
13  },
14  {
15    "salespers
16    "client":
17    "reams": 1
18  },
19 ]
20
21 var clients = [
22   "Shake Shack",
23   "Toast",
24   "Computer Scie
25   "Teacher's Col
26   "Starbucks",
27   "Subconscious"
28   "Flat Top",
29   "Joe's Coffee"
30   "Max Caffe",
31   "Nussbaum & Wu
32   "Taco Bell",
33 ];
34
35
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
var addSale = function(new_sale){
  //Update the data
  // prepend new sale to the array of sales
  sales.unshift(new_sale)
  //redisplay ALL DATA
  display_sales_list(sales)
  //if it's a new client, add to clients
  client = new_sale["client"]
  if( $.inArray(client, clients) < 0){
    clients.push(client)
  }
  //reset focus and values to
  // "entering data state"
  $("#enter_client").val("")
  $("#enter_reams").val("")
  $("#enter_client").focus()
}
```

Deleting Records (Model + ViewController Style)

```
var sales = [  
  {  
    "salesperson": "James D. Halpert",  
    "client": "Shake Shack",  
    "reams": 100  
  },  
  {  
    "salesperson": "Stanley Hudson",  
    "client": "Toast",  
    "reams": 400  
  },  
  {  
    "salesperson": "Michael G. Scott",  
    "client": "Computer Science Department",  
    "reams": 1000  
  },  
]
```

Columbia Paper Infinity

Log your paper sales:

James D. Halpert

Shake Shack

100

Stanley Hudson

Toast

400

```
108  
109 var display_sales_list = function(sales){  
110     $("#sales").empty()  
111  
112     $.each(sales, function(i, sale){  
113         //var row = $("#<div class='row bottom_row_padding'>")  
114         //CREATE UI HERE  
115  
116         var delete_button = $("#<button class='btn btn-warning'>X</button>")  
117         $(delete_button).click(function(){  
118             sales.splice(i, 1)  
119             display_sales_list(sales)  
120         })  
121     })  
122  
123     //ATTACH UI STUFF HERE  
124     $("#sales").append(row)  
125  
126  
127  
128  
129  
130  
131 }
```

Model + ViewController

update the data, Re-render the display

Columbia Paper Infinity

Log your paper sales: # Reams

James D. Halpert	Shake Shack	100	<input type="button" value="X"/>
Stanley Hudson	Toast	400	<input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000	<input type="button" value="X"/>

```
139
140 var addSale = function(new_sale){
141     //Update the data
142     // prepend new sale to the array of sales
143     sales.unshift(new_sale)
144
145     //redisplay ALL DATA
146     display_sales_list(sales)
147
148     //if it's a new client, add to clients
149     client = new_sale["client"]
150     if( $.inArray(client, clients) < 0){
151         clients.push(client)
152     }
153
154     //reset focus and values to
155     //"entering data state"
156     $("#enter_client").val("")
157     $("#enter_reams").val("")
158     $("#enter_client").focus()
159
160 }
161
```

Add sale

```
108
109 var display_sales_list = function(sales){
110     $("#sales").empty()
111
112     $.each(sales, function(i, sale){
113         //var row = $("<div class='row bottom_row_padding'>")
114         //CREATE UI HERE
115
116         var delete_button = $("<button class='btn btn-warning'>X</button>")
117         $(delete_button).click(function(){
118             sales.splice(i, 1)
119
120             display_sales_list(sales)
121
122         })
123
124     })
125
126     //ATTACH UI STUFF HERE
127     //$("#sales").append(row)
128
129
130
131 }
```

Delete sale

Drag and Drop the PPC members

Party Planning Committee

Non-PPC
1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
53
54 <body>
55 <div class="container">
56   <div class="jumbotron">
57     <h1>Party Planning Committee</h1>
58   </div>
59
60
61   <div class="row">
62     <div class="col-md-12">
63
64       <div class="row" >
65         <div class="col-md-2" >
66           <div id="non_ppc_label" class="list_label ui-widget-header" >Non-PPC</div>
67           <div id="non_ppc">
68             </div>
69         </div>
70
71       <div class="col-md-2" >
72         <div id="ppc_label" class="list_label ui-widget-header" >PPC</div>
73         <div id="ppc" >
74           </div>
75       </div>
76     </div>
77   </div>
78 </div>
79 </div>
80 </div>
81
82
83 </div>
84 </body>
85
```

Make the names appear

Party Planning Committee

Non-PPC

1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
var non_ppc = [  
  "Phyllis",  
  "Angela",  
  "Dwight",  
  "Oscar",  
  "Creed",  
  "Pam",  
  "Jim",  
  "Stanley",  
  "Michael",  
  "Kevin",  
  "Kelly"  
]
```

```
var ppc :
```

```
19  
20 function makeListItemWrapper(text, value, list){  
21   return "<div class='list_text ui-widget-content "+list+"' data-value="+value  
22 }  
23  
24 function make_non_ppc(non_ppc){  
25   $("#non_ppc").empty()  
26  
27   $.each(non_ppc, function( index, value ) {  
28     var text = (index+1) + ": " + value  
29     var text_wrapper = makeListItemWrapper(text, value, "non_ppc_list")  
30     $("#non_ppc").append(text_wrapper)  
31  
32     $(".non_ppc_list").draggable({  
33       revert: function (droppableObj) {  
34         //if false then no object drop occurred.  
35         if (droppableObj === false) {  
36           return true;  
37         } else {  
38           return false;  
39         }  
40       }  
41     })  
42   })  
43  
44 });  
45 }  
46
```

Make the list headers drop targets

Party Planning Committee

Non-PPC
1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
<style>
  .highlightDRAGGING.highlightHOVER{
    background-color: darkblue;
  }

  .highlightDRAGGING{
    background-color: blue ;
  }
</style>
```

```
76
77 $(document).ready(function(){
78   make_ppc(ppc)
79
80   $("#ppc_label").droppable({
81     accept: ".non_ppc_list",
82     //highlightClass: "ui-state-active",
83     classes: {
84       "ui-droppable-active": "highlightDRAGGING",
85       "ui-droppable-hover": "highlightHOVER"
86     },
87     drop: function( event, ui ) {
88       var name_dropped = $(ui.draggable[0]).data("value")
89
90       ppc.push(name_dropped)
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );
92
93       make_non_ppc(non_ppc)
94       make_ppc(ppc)
95
96     }
97   });
98
99
```

Drop a name (Model + ViewController Style) update the data, Re-render the display

Party Planning Committee

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	
9: Michael	
10: Kevin	
11: Kelly	

```
76
77 $(document).ready(function(){
78   make_ppc(ppc)
79
80   $( "#ppc_label" ).droppable({
81     accept: ".non_ppc_list",
82     //hoverClass: "ui-state-active",
83     classes: {
84       "ui-droppable-active": "highlightDRAGGING",
85       "ui-droppable-hover": "highlightHOVER"
86     },
87     drop: function( event, ui ) {
88       var name_dropped = $(ui.draggable[0]).data("value")
89
90       ppc.push(name_dropped)
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );
92
93       make_non_ppc(non_ppc)
94       make_ppc(ppc)
95     }
96   });
97
98
99
```

Summary

Dynamically create widgets

Buttons

Submit

X

X

X

X

Autocomplete

Log your paper sales:

To|
Toast
Flat Top

Drag and Drop

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	
9: Michael	
10: Kevin	
11: Kelly	

Added minor customization
(hovering and drop target feedback)

Interacting with Data

Columbia Paper Infinity

Log your paper sales:

<input type="text" value="Client"/>	<input type="text" value="# Reams"/>	<input type="button" value="Submit"/>
James D. Halpert	Shake Shack	100
Stanley Hudson	Toast	400
Michael G. Scott	Computer Science Department	1000

Each row in the table has a yellow button with an 'X' icon to its right, indicating a delete action.

Create / Delete data

Party Planning Committee

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	

Update data

Model + ViewController

update the data, Re-render the display

```
var addSale = function(new_sale){
  //Update the data
  // prepend new sale to the array of sales
  sales.unshift(new_sale)
  //redisplay ALL DATA
  display_sales_list(sales)
  //if it's a new client, add to clients
  client = new_sale["client"]
  if( $.inArray(client, clients) < 0){
    clients.push(client)
  }
  //reset focus and values to
  //"entering data state"
  $("#enter_client").val("")
  $("#enter_reams").val("")
  $("#enter_client").focus()
}
```

Add data

```
var display_sales_list = function(sales){
  $("#sales").empty()
  $.each(sales, function(i, sale){
    //var row = $("<div class='row bottom_r
    //CREATE UI HERE

    var delete_button = $("<button class='b
    $(delete_button).click(function(){
      sales.splice(i, 1)
      display_sales_list(sales)
    })
  })
  //ATTACH UI STUFF HERE
  //$("#sales").append(row)
}
```

Delete data

```
$( "#ppc_label" ).droppable({
  accept: ".non_ppc_list",
  //hoverClass: "ui-state-active",
  classes: {
    "ui-droppable-active": "highlightDRAGGING",
    "ui-droppable-hover": "highlightHOVER"
  },
  drop: function( event, ui ) {
    var name_dropped = $(ui.draggable[0]).d
    ppc.push(name_dropped)
    non_ppc.splice( $.inArray(name_dropped,
    make_non_ppc(non_ppc)
    make_ppc(ppc)
  }
});
```

Update data

Review

Homework 4

Dynamic JavaScript + UI Widgets

Logging Paper Sales

Columbia Paper Infinity

Log your paper sales:

Client	# Reams	
James D. Halpert	Shake Shack	100 <input type="button" value="X"/>
Stanley Hudson	Toast	400 <input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000 <input type="button" value="X"/>

```
36 <body>
37 <div class="container">
38   <div class="jumbotron">
39     <h1>Columbia Paper Infinity</h1>
40   </div>
41   <div id="logsales" >
42     <div class="row">
43       <div class="col-md-2">
44         Log your paper sales:
45       </div>
46       <div class="col-md-4">
47         <div class="ui-widget">
48           <input type="text" id="enter_client" placeholder="Client" >
49         </div>
50       </div>
51       <div class="col-md-2">
52         <input type="text" id="enter_reams" placeholder="# Reams" >
53       </div>
54       <button class="btn btn-primary" id="submit_sale">Submit</button>
55     </div>
56     <br>
57     <div id="sales">
58     </div>
59   </div>
60 </div>
61 </body>
62 </div>
63 </div>
64 </body>
65
```

Autocomplete Client names

Log your paper sales:

Toast
Flat Top

```
36 <body>
37 <div class="container">
38   <div class="jumbotron">
39     <h1>Columbia Paper Infinity</h1>
40   </div>
41   <div id="logsales" >
42     <div class="row">
43       <div class="col-md-2">
44         Log your paper sales:
45       </div>
46       <div class="col-md-4">
47         <div class="ui-widget">
48           <input type="text" id="enter_client" placeholder="Client" >
49         </div>
50       </div>
51       <div class="col-md-2">
52         <input type="text" id="enter_reams" placeholder="# Reams" >
53       </div>
54       <button class="btn btn-primary" id="submit_sale">Submit</button>
55     </div>
56   </div>
57   <br>
58   <div id="sales">
59   </div>
60 </div>
61 </div>
62 </div>
63 </body>
64 </body>
65
```

1_log_sales.html

```
20
21 var clients = [
22   "Shake Shack",
23   "Toast",
24   "Computer Science Department",
25   "Teacher's College",
26   "Starbucks",
27   "Subsconscious",
28   "Flat Top",
29   "Joe's Coffee",
30   "Max Caffe",
31   "Nussbaum & Wu",
32   "Taco Bell",
33 ];
34
35
36
37
38 $(document).ready(function(){
39   $( "#enter_client" ).autocomplete({
40     source: clients
41   });
42
43
```

1_log_sales.js

Load sales from data

Columbia Paper Infinity

Log your paper sales:

James D. Halpert

Shake Shack

100

Stanley Hudson

Toast

400

Michael G. Scott

Computer Science Department

1000

```
var sales = [
  {
    "salesperson": "James D. Halpert",
    "client": "Shake Shack",
    "reams": 100
  },
  {
    "salesperson": "Stanley Hudson",
    "client": "Toast",
    "reams": 400
  },
  {
    "salesperson": "Michael G. Scott",
    "client": "Computer Science Department",
    "reams": 1000
  }
]
```

```
66 var display_sales_list = function(sales){
67   $("#sales").empty()
68
69   if(sales.length == 0){
70     var row = $("<div class='row'>")
71     var col_client = $("<div class='col-md-4'>")
72     $(col_client).append("No Sales")
73     $("#sales").append(row)
74   }else {
75     $.each(sales, function(i, sale){
76
77       var row = $("<div class='row bottom_row_padding'>")
78       var col_salesperson = $("<div class='col-md-2'>")
79       $(col_salesperson).append(sale["salesperson"])
80       $(row).append(col_salesperson)
81
82       var col_client = $("<div class='col-md-4'>")
83       $(col_client).append(sale["client"])
84       $(row).append(col_client)
85
86       var col_reams = $("<div class='col-md-2'>")
87       $(col_reams).append(sale["reams"])
88       $(row).append(col_reams)
89
90       var col_salesperson = $("<div class='col-md-3'>")
91       var delete_button = $("<button class='btn btn-warning'>X</button>")
92       $(delete_button).click(function(){
93         //alert(i)
94         sales.splice(i, 1)
95         display_sales_list(sales)
96       })
97
98       $(col_salesperson).append(delete_button)
99       $(row).append(col_salesperson)
100
101       $("#sales").append(row)
102     })
103   }
104 }
105
106
107
108 }
```

Enter sale part 1 – Submit new sale data

Columbia Paper Infinity

Log your paper sales:

<input type="text" value="Toast"/>	<input type="text" value="6000"/>	<input type="button" value="Submit"/>
James D. Halpert	Shake Shack	100 <input type="button" value="X"/>
Stanley Hudson	Toast	400 <input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000 <input type="button" value="X"/>

```
38 $(document).ready(function(){  
39  
40     $("#submit_sale").click(function(){  
41         submitSale()  
42     })  
43  
44     $("#enter_reams").keypress(function(e){  
45         if(e.which == 13) {  
46             submitSale()  
47         }  
48     })  
49 }
```

Validate new sale data

Log your paper sales:

Client	# Reams	Submit
James D. Halpert	Shake Shack	100
Stanley Hudson	Toast	400
Michael G. Scott	Computer Science Department	1000

Client cannot be empty
Reams cannot be empty

Log your paper sales:

Joe's Coffee	# Reams	Submit
James D. Halpert	Shake Shack	100
Stanley Hudson	Toast	400
Michael G. Scott	Computer Science Department	1000

Reams cannot be empty

Log your paper sales:

Joe's Coffee	one hundred	Submit
James D. Halpert	Shake Shack	100
Stanley Hudson	Toast	400
Michael G. Scott	Computer Science Department	1000

Reams must be a number

```
109
110 var submitSale = function(){
111     // remove all warnings
112     $(".warning").empty()
113
114     var client = $.trim( $("#enter_client").val() )
115     var reams = $.trim( $("#enter_reams").val() )
116     var no_error = true
117
118     if(client == ""){
119         // show warning
120         $("#client_warning_div").append('<div class="warning">Client cannot be empty</div>')
121
122         $("#enter_client").val("")
123         $("#enter_client").focus()
124         no_error = false
125     }
126     if (reams == ""){
127         // show warning
128         $("#reams_warning_div").append('<div class="warning">Reams cannot be empty</div>')
129
130         $("#enter_reams").val("")
131         $("#enter_reams").focus()
132         no_error = false
133     }
134     if (!(reams == "") && !$.isNumeric(reams)){
135         // show warning
136         $("#reams_warning_div").append('<div class="warning">Reams must be a number</div>')
137
138         $("#enter_reams").focus()
139         no_error = false
140     }
141
142     if(no_error){
143         var new_sale = {
144             "salesperson": salesperson,
145             "client": client,
146             "reams": reams
147         }
148         addSale(new_sale)
149     }
150 }
```

Enter sale part 2 – update data (Model + ViewController Style)

Columbia Paper Infinity

Log your paper sales:

Dwight K. Schrute	Toast	6000	<input type="button" value="X"/>
James D. Halpert	Shake Shack	100	<input type="button" value="X"/>
Stanley Hudson	Toast	400	<input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000	<input type="button" value="X"/>

```
2
3 var sales = [
4   {
5     "salesperson": "James D. Halpert",
6     "client": "Shake Shack",
7     "reams": 1
8   },
9   {
10    "salespers
11    "client":
12    "reams": 4
13  },
14  {
15    "salespers
16    "client":
17    "reams": 1
18  },
19 ]
20
21 var clients = [
22   "Shake Shack",
23   "Toast",
24   "Computer Scie
25   "Teacher's Col
26   "Starbucks",
27   "Subconscious"
28   "Flat Top",
29   "Joe's Coffee"
30   "Max Caffe",
31   "Nussbaum & Wu
32   "Taco Bell",
33 ];
34
35
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
var addSale = function(new_sale){
  //Update the data
  // prepend new sale to the array of sales
  sales.unshift(new_sale)
  //redisplay ALL DATA
  display_sales_list(sales)
  //if it's a new client, add to clients
  client = new_sale["client"]
  if( $.inArray(client, clients) < 0){
    clients.push(client)
  }
  //reset focus and values to
  // "entering data state"
  $("#enter_client").val("")
  $("#enter_reams").val("")
  $("#enter_client").focus()
}
```

Deleting Records (Model + ViewController Style)

```
var sales = [  
  {  
    "salesperson": "James D. Halpert",  
    "client": "Shake Shack",  
    "reams": 100  
  },  
  {  
    "salesperson": "Stanley Hudson",  
    "client": "Toast",  
    "reams": 400  
  },  
  {  
    "salesperson": "Michael G. Scott",  
    "client": "Computer Science Department",  
    "reams": 1000  
  },  
]
```

Columbia Paper Infinity

Log your paper sales:

James D. Halpert

Shake Shack

100

Stanley Hudson

Toast

400

```
108  
109 var display_sales_list = function(sales){  
110     $("#sales").empty()  
111  
112     $.each(sales, function(i, sale){  
113         //var row = $("#<div class='row bottom_row_padding'>")  
114         //CREATE UI HERE  
115  
116         var delete_button = $("#<button class='btn btn-warning'>X</button>")  
117         $(delete_button).click(function(){  
118             sales.splice(i, 1)  
119             display_sales_list(sales)  
120         })  
121     })  
122  
123     //ATTACH UI STUFF HERE  
124     $("#sales").append(row)  
125  
126  
127  
128  
129  
130  
131 }
```


Model + View/Controller

update the data, Re-render the display

Columbia Paper Infinity

Log your paper sales: # Reams

James D. Halpert	Shake Shack	100	<input type="button" value="X"/>
Stanley Hudson	Toast	400	<input type="button" value="X"/>
Michael G. Scott	Computer Science Department	1000	<input type="button" value="X"/>

```
139
140 var addSale = function(new_sale){
141     //Update the data
142     // prepend new sale to the array of sales
143     sales.unshift(new_sale)
144
145     //redisplay ALL DATA
146     display_sales_list(sales)
147
148     //if it's a new client, add to clients
149     client = new_sale["client"]
150     if( $.inArray(client, clients) < 0){
151         clients.push(client)
152     }
153
154
155
156
157
158
159
160 }
161
```

Add sale

```
108
109 var display_sales_list = function(sales){
110     $("#sales").empty()
111
112     $.each(sales, function(i, sale){
113         //var row = $("<div class='row bottom_row_padding'>")
114         //CREATE UI HERE
115
116         var delete_button = $("<button class='btn btn-warning'>X</button>")
117         $(delete_button).click(function(){
118             sales.splice(i, 1)
119
120             display_sales_list(sales)
121
122         })
123
124     })
125
126     //ATTACH UI STUFF HERE
127     $("#sales").append(row)
128
129
130
131 }
```

Delete sale

Drag and Drop the PPC members

Party Planning Committee

Non-PPC
1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
53
54 <body>
55 <div class="container">
56   <div class="jumbotron">
57     <h1>Party Planning Committee</h1>
58   </div>
59
60
61   <div class="row">
62     <div class="col-md-12">
63       <div class="row" >
64         <div class="col-md-2" >
65           <div id="non_ppc_label" class="list_label ui-widget-header" >Non-PPC</div>
66           <div id="non_ppc">
67             </div>
68         </div>
69       </div>
70
71       <div class="col-md-2" >
72         <div id="ppc_label" class="list_label ui-widget-header" >PPC</div>
73         <div id="ppc" >
74           </div>
75       </div>
76     </div>
77   </div>
78 </div>
79 </div>
80 </div>
81
82
83 </div>
84 </body>
85
```

Make the names appear

Party Planning Committee

Non-PPC

1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
var non_ppc = [
  "Phyllis",
  "Angela",
  "Dwight",
  "Oscar",
  "Creed",
  "Pam",
  "Jim",
  "Stanley",
  "Michael",
  "Kevin",
  "Kelly"
]

var ppc = [

function makeListItemWrapper(text, value, list){
  let itemWrapper = $("
```

Make the list headers drop targets

Party Planning Committee

Non-PPC
1: Phyllis
2: Angela
3: Dwight
4: Oscar
5: Creed
6: Pam
7: Jim
8: Stanley
9: Michael
10: Kevin
11: Kelly

PPC

```
<style>
  .highlightDRAGGING.highlightHOVER{
    background-color: darkblue;
  }

  .highlightDRAGGING{
    background-color: blue ;
  }
</style>
```

```
76
77 $(document).ready(function(){
78   make_ppc(ppc)
79
80   $("#ppc_label").droppable({
81     accept: ".non_ppc_list",
82     //highlightClass: "ui-state-active",
83     classes: {
84       "ui-droppable-active": "highlightDRAGGING",
85       "ui-droppable-hover": "highlightHOVER"
86     },
87     drop: function( event, ui ) {
88       var name_dropped = $(ui.draggable[0]).data("value")
89
90       ppc.push(name_dropped)
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );
92
93       make_non_ppc(non_ppc)
94       make_ppc(ppc)
95
96     }
97   });
98
99
```

Drop a name (Model + ViewController Style) update the data, Re-render the display

Party Planning Committee

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	
9: Michael	
10: Kevin	
11: Kelly	

```
76
77 $(document).ready(function(){
78   make_ppc(ppc)
79
80   $( "#ppc_label" ).droppable({
81     accept: ".non_ppc_list",
82     //hoverClass: "ui-state-active",
83     classes: {
84       "ui-droppable-active": "highlightDRAGGING",
85       "ui-droppable-hover": "highlightHOVER"
86     },
87     drop: function( event, ui ) {
88       var name_dropped = $(ui.draggable[0]).data("value")
89
90       ppc.push(name_dropped)
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );
92
93       make_non_ppc(non_ppc)
94       make_ppc(ppc)
95     }
96   });
97
98
99
```

In Model + View/Controler, you need identifiers on HTML elements to point back to the data.

Set id on an html element:

```
25  
26 function makeListItemWrapper(text, value, list){  
27   let itemWrapper = $("28   itemWrapper.text(text)  
29   itemWrapper.data("value", value)  
30   return itemWrapper  
31 }
```

Get id from html element:

```
76  
77 $(document).ready(function(){  
78   make_ppc(ppc)  
79  
80   $( "#ppc_label" ).droppable({  
81     accept: ".non_ppc_list",  
82     //hoverClass: "ui-state-active",  
83     classes: {  
84       "ui-droppable-active": "highlightDRAGGING",  
85       "ui-droppable-hover": "highlightHOVER"  
86     },  
87     drop: function( event, ui ) {  
88       var name_dropped = $(ui.draggable[0]).data("value")  
89  
90       ppc.push(name_dropped)  
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );  
92  
93       make_non_ppc(non_ppc)  
94       make_ppc(ppc)  
95  
96     }  
97   });  
98 }  
99
```

Summary

Dynamically create widgets

Buttons

Submit



Autocomplete

Log your paper sales:

- Toast
- Flat Top

Drag and Drop

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	
9: Michael	
10: Kevin	
11: Kelly	

Added minor customization
(hovering and drop target feedback)

Interacting with Data

Columbia Paper Infinity

Log your paper sales:

<input type="text" value="Client"/>	<input type="text" value="# Reams"/>	<input type="button" value="Submit"/>
James D. Halpert	Shake Shack	100
Stanley Hudson	Toast	400
Michael G. Scott	Computer Science Department	1000

Each row in the table has a yellow button with an 'X' icon to its right, indicating a delete action.

Create / Delete data

Party Planning Committee

Non-PPC	PPC
1: Phyllis	
2: Angela	
3: Dwight	
4: Oscar	
5: Creed	
6: Pam	
7: Jim	
8: Stanley	

Update data

Model + ViewController

update the data, Re-render the display

```
var addSale = function(new_sale){
  //Update the data
  // prepend new sale to the array of sales
  sales.unshift(new_sale)
  //redisplay ALL DATA
  display_sales_list(sales)
  //if it's a new client, add to clients
  client = new_sale["client"]
  if( $.inArray(client, clients) < 0){
    clients.push(client)
  }
  //reset focus and values to
  //"entering data state"
  $("#enter_client").val("")
  $("#enter_reams").val("")
  $("#enter_client").focus()
}
```

Add data

```
var display_sales_list = function(sales){
  $("#sales").empty()
  $.each(sales, function(i, sale){
    //var row = $("<div class='row bottom_r
    //CREATE UI HERE

    var delete_button = $("<button class='b
    $(delete_button).click(function(){
      sales.splice(i, 1)
      display_sales_list(sales)
    })
  })
  //ATTACH UI STUFF HERE
  //$("#sales").append(row)
}
```

Delete data

```
$( "#ppc_label" ).droppable({
  accept: ".non_ppc_list",
  //hoverClass: "ui-state-active",
  classes: {
    "ui-droppable-active": "highlightDRAGGING",
    "ui-droppable-hover": "highlightHOVER"
  },
  drop: function( event, ui ) {
    var name_dropped = $(ui.draggable[0]).d
    ppc.push(name_dropped)
    non_ppc.splice( $.inArray(name_dropped,
    make_non_ppc(non_ppc)
    make_ppc(ppc)
  }
});
```

Update data

Setting and Getting Ids on HTML elements

Set id on an html element:

```
25  
26 function makeListItemWrapper(text, value, list){  
27   let itemWrapper = $("28   itemWrapper.text(text)  
29   itemWrapper.data("value", value)  
30   return itemWrapper  
31 }
```

Get id from html element:

```
76  
77 $(document).ready(function(){  
78   make_ppc(ppc)  
79  
80   $( "#ppc_label" ).droppable({  
81     accept: ".non_ppc_list",  
82     //hoverClass: "ui-state-active",  
83     classes: {  
84       "ui-droppable-active": "highlightDRAGGING",  
85       "ui-droppable-hover": "highlightHOVER"  
86     },  
87     drop: function( event, ui ) {  
88       var name_dropped = $(ui.draggable[0]).data("value")  
89  
90       ppc.push(name_dropped)  
91       non_ppc.splice( $.inArray(name_dropped, non_ppc), 1 );  
92  
93       make_non_ppc(non_ppc)  
94       make_ppc(ppc)  
95  
96     }  
97   });  
98 }  
99
```

Problem:

The data doesn't save