```
 1: /*jslint
 2:    vars : true
 3: */
 4: //Bubble tea ordering system.
 5: //Global variables, so the various functions below
 6: //can cooperate together.
 7: var toppingArray; //Array of toppings to keep track of toppings
 8: var toppingSelect; //The topping element
 9: var toppingList; //The output for the topping list
10: var teaSelect; //the tea selection dropdown box
11: var costOutput; //The element where we will display the cost.
12: var milkSelect;
13: var drinkImg;
14: var drinkCtx;
15:
16:
17: //The setup function, sets all the initial values of the
18: //global variables. It is called when the onload event
19: //occurs, because we specified the onload attribute in
20: //HTML.
21: function setup() {
22:     "use strict";
23:     toppingArray = []; //reset toppings
24:
25:     toppingSelect = document.getElementById("toppingSelect");
26:     toppingList = document.getElementById("toppingList");
27:     teaSelect = document.getElementById("teaSelect");
28:     costOutput = document.getElementById("output");
29:     milkSelect = document.getElementById("milk");
30:     drinkImg = document.getElementById("drink");
31:     drinkCtx = drinkImg.getContext("2d");
32:
33:     document.getElementById("add").onclick = addTopping;
34:     document.getElementById("remove").onclick = removeTopping;
35:     document.getElementById("calculate").onclick = calc;
36:     document.getElementById("milk").onchange = drawDrink;
37:     document.getElementById("teaSelect").onchange = drawDrink;
38: }
39: setup();
40:
41: //updateToppings: Helper function
42: //used to loop through the topping array to generate a string
43: //that lists all the toppings.
44: //It then sets the string to the innerHTML of the toppingList
45: //element, so the user can see it.
46: function updateToppings() {
47:     "use strict";
48:     var toppingString = "<ul>";
```

```
49:     var i;
50:     for (i = 0; i < toppingArray.length; i = i + 1) {
51:         toppingString = toppingString + "<li>"+toppingArray[i]+ "</li>";
52:     }
53:
54:     toppingString = toppingString + "</ul>";
55:     toppingList.innerHTML = toppingString;
56: }
57:
58: //addTopping: Event Listener
59: //responds to the add Topping button.
60: //Checks if the topping is in the list
61: //add to the list if the topping is not in the
62: //list and then update the webpage use updateToppings
63: function addTopping(event) {
64:     "use strict";
65:     var toppingValue = toppingSelect.value;
66:
67:     if (toppingArray.indexOf(toppingValue) === -1 ) {
68:         toppingArray.push(toppingValue);
69:     }
70:     updateToppings();
71:     drawDrink();
72: }
73: //removeTopping: Event Listener
74: //If the list is not empty, removes the last item from thelist
75: //them updates the page using the updateToppings helper
76: function removeTopping(event) {
77:     "use strict";
78:     if (toppingArray.length !== 0) {
79:         toppingArray.pop();
80:
81:     }
82:     updateToppings();
83:     drawDrink();
84: }
85:
86: //calc: calculates the price of the order
87: //1. retrieves the teaType from the page and find the based cost
88: //2. loop through the toppingArray to add any additional cost
89: //3. Add the cost of milk.
90: //*Note: We can do the cost calculation in any order.
91: //4. update the webpage with the total cost.
92: function calc() {
93:     "use strict";
94:     var teaType = teaSelect.value;
95:     var cost = 0;
96:     var milk = milkSelect.value;
```

```
    var i = 0;

    //1. find base cost
    if (teaType === "black") {
        cost = 2.50;
    } else if (teaType === "red") {
        cost = 3.50;
    } else if (teaType === "green") {
        cost = 3.00;
    }

    //2. loop through toppings
    for (i = 0; i < toppingArray.length; i = i + 1) {
        if (toppingArray[i] === "Grass Jelly") {
            cost = cost + 0.5;
        } else if (toppingArray[i] === "Cocunut") {
            cost = cost + 0.75;
        } else if (toppingArray[i] === "Pearls") {
            cost = cost + 0.5;
        } else if (toppingArray[i] === "Mango Stars") {
            cost = cost + 1.00;
        }
    }
    //4. add the cost of milk
    if (milk === "yes") {
        cost = cost + 1.00;
    }
    //4. display cost
    output.innerHTML = "Total Cost $" + cost;
    drawDrink();
}
function drawDrink(){
    var teaType = teaSelect.value;
    var milk = milkSelect.value;
    var i =0;

    drinkCtx.clearRect(0,0,drinkImg.width,drinkImg.height);
    var color = "red"

    if(teaType === "black"){
        color = "black";
    }else if(teaType === "green"){
        color = "green";
    }else if(teaType === "red"){
        color = "red";
    }
    drinkCtx.fillStyle = color;
    drinkCtx.fillRect(50,0,100,200);
```

```
145:
146:     for( i =0; i < toppingArray.length; i = i +1){
147:         if(toppingArray[i] === "Grass Jelly"){
148:             color = "black";
149:         } else if (toppingArray[i] === "Coconut"){
150:             color = "white";
151:         } else if (toppingArray[i] === "Pearls") {
152:             color = "blue";
153:         } else if (toppingArray[i] === "Mango Stars"){
154:             color = "yellow";
155:         }
156:         drinkCtx.fillStyle = color;
157:         for(x = 50; x <150; x = x +20){
158:             drinkCtx.fillRect(x+5, 180-i*20,10,10);
159:         }
160:     }
161:     if(milk === "yes"){
162:         drinkCtx.fillStyle = "rgba(255,255,255,0.50)";
163:         drinkCtx.fillRect(50,0,100,200);
164:     }
165:
166: }
```