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CS20 - Web Programming
Professor DiOrio
Assignment 5: Lottery Sim

Online Link
https://mattia-danese.github.io/CS20-hw5/

HTML Code

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width,
initial-scale=1.0">
   <title>Lottery Sim</title>

   <link rel = "stylesheet" href = "./style.css" />
   <style></style>
   <script src="./script.js"></script>

</head>
<body>
   <h1>Lottery Sim</h1>

   <button onclick="game();">Click to Play!</button>

   <h2 id="load">Picking Your Numbers</h2>

   <div id="container">
       <hr>

       <div>Your Pick: <span id="pick"></span></div>
       <div>Your Sorted Pick: <span id="pick_sorted"></span></div>
       <div>Your Lucky Ball: <span id="lucky_ball"></span></div>

       <hr>

       <div id="winning_nums">
```

```
           The Winning Numbers and <span class="lucky">Lucky
Ball</span> are:
           <span>12, 15, 24, 35, 48, <span
class="lucky">3</span></span>
       </div>

       <hr>

       <div>Number of 'Pick' matches: <span id="matches"></span></div>
       <div>Did your Lucky Ball match? <span
id="match_lucky"></span></div>

       <hr>

       <div>Your payout: <span id="payout"></span></div>

       <hr>
   </div>
</body>
</html>
```

Javascript Code

```
function determinePick(){
   pick = [];
   while (pick.length < 5){
       num = Math.floor(Math.random() * 48) + 1;  //check this
       if(pick.indexOf(num) == -1){
           pick.push(num);}
   }

   pick_unsorted = [...pick];
   pick.sort(function(a, b){return a - b});

   return pick, pick_unsorted;
}

function determineMatches(pick, lucky){
   lucky_match = false;
   winning_nums = [12, 15, 24, 35, 48];
   winning_lucky = 3;
   matches = 0;

   for(i = 0; i < 6; i++){
       if(winning_nums.indexOf(pick[i]) != -1){
           matches += 1;}}
   if(lucky == winning_lucky){
       lucky_match = true;}

   return matches, lucky_match;
}

function determinePayout(matches, lucky_match){
   table = [
       "$4",
       "$6",
       "$3",
       "$25",
       "$20",
       "$150",
       "$200",
       "$5,000",
```

```
        "$25,000 a YEAR for LIFE",
        "$7,000 a WEEK for LIFE"
    ];

    payout = "";
    if(matches >= 2) {
        if(lucky_match == true){
            payout = table[(matches - 1) * 2 + 1];
        }
        else{
            payout = table[(matches - 1) * 2];}
    }
    else {
        if(matches == 0 && lucky_match == true){
            payout = table[0];
        }
        else{
            if(matches == 1 && lucky_match == true){
                payout = table[1];
            }
            else {payout = "$0";}
        }
    }

    return payout;
}

function updateDOM(pick, pick_unsorted, lucky, matches, lucky_match,
payout){
    document.getElementById("load").style = "display: none;";
    document.getElementById("load").innerHTML = "Picking Your Numbers";

    document.getElementById("pick").innerHTML = pick_unsorted.join(',
');
    document.getElementById("pick_sorted").innerHTML = pick.join(', ');
    document.getElementById("lucky_ball").innerHTML = lucky;

    document.getElementById("matches").innerHTML = matches;
    if(lucky_match == true){
        document.getElementById("match_lucky").innerHTML = "Yes!";}
```

```
   else{
       document.getElementById("match_lucky").innerHTML = "No.";}

   document.getElementById("payout").innerHTML = payout;

   document.getElementsByTagName("button")[0].innerHTML = "Click to
Play Again!";
   document.getElementById("container").style = "display: block;";
}

function addDot(){
   document.getElementById("load").innerHTML += ".";
}


function loading(){
   load = document.getElementById("load");
   load.style = "display: block;";

   for(i=0; i < 3;i++){
       setTimeout(addDot, 500 + (i*2000));
       setTimeout(addDot, 1000 + (i*2000));
       setTimeout(addDot, 1500 + (i*2000));
       if(i != 2){
           setTimeout(function() {load.innerHTML = "Picking Your
Numbers";}, 2000 + (i*2000));
       }
   }
}

function game(){
   document.getElementById("container").style = "display: none;";

   pick, pick_unsorted = determinePick();
   lucky = Math.floor(Math.random() * 18) + 1;

   matches, lucky_match = determineMatches(pick, lucky);

   payout = determinePayout(matches, lucky_match);
```

```
   loading();

   setTimeout(function() {updateDOM(pick, pick_unsorted, lucky,
matches, lucky_match, payout)}, 6000);
}
```

CSS Code

```
body{
   height: 100vh;
   width: 100vw;


   text-align: center;
   background-color: azure;
   position: relative;
}

#container{
   display: none;
   position: absolute;
   top: 50%;
   left: 50%;
   transform: translate(-50%, -50%);

   text-align: left;
   font-size: larger;
}

#container div{
   margin-bottom: 2%;
}

h1{
   text-decoration: underline;
   color: navy;
   font-size: 10vh;
   margin-bottom: 3.5vh;
}

button{
   font-size: 3vh;
   padding: 15px;
   border-radius: 25px;
   color: white;
   background-color: green;
}
```

```
button:hover{
   cursor: pointer;
   font-size: 3.15vh;
}

.lucky{
   color: green;
   font-weight: bold;
   text-decoration: underline;
}

h2{
   display: none;
   position: absolute;
   top: 35%;
   left: 50%;
   transform: translate(-50%, -50%);
}
```