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1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>IS 542 - Homework 2</title>
7     <script>
8         function fibSeq() {
9             var userInput = document.getElementById("fibInput").value;
10            var fib1 = 0;
11            var fib2 = 1;
12            var fib_list = [0, 1];
13            var sum;
14            for (i = 0; i < userInput; i+=1) {
15                sum = fib1 + fib2;
16                fib_list.push(sum);
17                fib1 = fib2;
18                fib2 = sum;
19            }
20            document.getElementById("fibResult").innerHTML = fib_list.toString();
21        };
22
23        function fact() {
24            var userInput = document.getElementById("factInput").value;
25            var fac1 = 1;
26            for (i = 1; i <= userInput; i+=1) {
27                fac_result = fac1 * i;
28                fac1 = fac_result;
29            }
30            document.getElementById("facResult").innerHTML = fac1;
31        };
32
33        function sumIntegers() {
34            var userInput1 = document.getElementById("sumIntInput1").value;
35            var userInput2 = document.getElementById("sumIntInput2").value;
36            var sumInt1 = parseInt(userInput1);
37            for (i = sumInt1 + 1; i <= userInput2; i+=1) {
38                sumIntResult = sumInt1 + i;
39                sumInt1 = sumIntResult;
40            }
41            document.getElementById("sumIntResult").innerHTML = sumInt1;
42        };
43
44        function numCoins() {
45            var userInput = document.getElementById("findCoinInput").value;
46            var numQuarters = 0;
47            var numDimes = 0;
48            var numNickels = 0;
49            var numPennies = 0;
50            while (userInput > 0){
51                if (userInput >= 25) {
52                    userInput = userInput - 25;
53                    numQuarters+=1;
54                } else if (userInput >= 10) {
55                    userInput = userInput - 10;
56                    numDimes+=1;
57                } else if (userInput >= 5) {
58                    userInput = userInput - 5;
59                    numNickels+=1;
60                } else if (userInput <= 5) {

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61         userInput = userInput - 1;
62         numPennies+=1;
63     }
64 }
65 if (numQuarters > 1) {
66     numQuartersString = numQuarters + " quarters, ";
67 } else if (numQuarters == 1) {
68     numQuartersString = numQuarters + " quarter, ";
69 } else if (numQuarters == 0) {
70     numQuartersString = "";
71 }
72
73 if (numDimes > 1) {
74     numDimesString = numDimes + " dimes, ";
75 } else if (numDimes == 1) {
76     numDimesString = numDimes + " dime, ";
77 } else if (numDimes == 0) {
78     numDimesString = "";
79 }
80
81 if (numNickels > 1) {
82     numNickelsString = numNickels + " nickels, ";
83 } else if (numNickels == 1) {
84     numNickelsString = numNickels + " nickel, ";
85 } else if (numNickels == 0) {
86     numNickelsString = "";
87 }
88
89 if (numPennies > 1) {
90     numPenniesString = numPennies + " pennies";
91 } else if (numPennies == 1) {
92     numPenniesString = numPennies + " penny";
93 } else if (numPennies == 0) {
94     numPenniesString = "";
95 }
96
97 finalString = numQuartersString + numDimesString + numNickelsString +
numPenniesString;
98     document.getElementById("findCoinResult").innerHTML = finalString;
99 };
100 </script>
101 </head>
102 <body>
103     <h1>Fibonacci Sequence</h1>
104     <input type="text" id="fibInput" value="4">
105     <button type="button" id="fibButton" onclick="fibSeq()">Run Fibonacci
sequence</button>
106     <p id="fibResult">Fibonacci sequence will show here</p>
107
108     <h1>Factorial</h1>
109     <input type="text" id="factInput" value="4">
110     <button type="button" id="fibButton" onclick="fact()">Compute factorial</button>
111     <p id="facResult">Factorial answer will show here</p>
112
113     <h1>Sum All Integers</h1>
114     <input type="text" id="sumIntInput1" value="4">
115     <input type="text" id="sumIntInput2" value="4">
116     <button type="button" id="sumIntButton" onclick="sumIntegers()">Compute sum of
integers</button>
117     <p id="sumIntResult">Factorial answer will show here</p>

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118
119     <h1>Find Number of Coins</h1>
120     <input type="text" id="findCoinInput" value="4">
121     <button type="button" id="findCoinButton" onclick="numCoins()">Find number of
coins</button>
122     <p id="findCoinResult">Number of coins will show here</p>
123 </body>
124 </html>
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