Anghela M. Aliza
Bsit3b

Midterm_-_Lab_Activity3_The_Javascript_Basics

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

Please enter your age:

OK   Cancel

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

You are below 25 years old.

OK

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

Please enter a number less than 100:

OK   Cancel

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

You are 25 years old and up.

OK

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

Please enter your age:

30

OK   Cancel

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

You entered a number less than 100.

OK

---

file:///C:/Users/anghela%20aliza/Downloads/act2/act3.html

THIS PAGE SAYS

Please enter a number less than 100:

200

OK   Cancel

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THIS PAGE SAYS

You did not enter a number less than 100.

OK
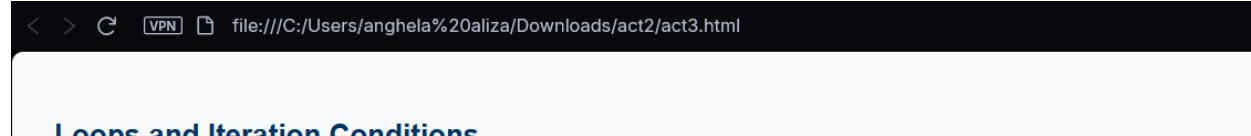
Loops and Iteration Conditions

You are 25 years old and up.

You did not enter a number less than 100.

Numbers from 0 to 30:

Loops and Iteration Conditions

You are below 25 years old.

You entered a number less than 100.

Numbers from 0 to 30:

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Loops and Iteration Conditions

You are below 25 years old.
You entered a number less than 100.

Numbers from 0 to 30:

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

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Even numbers from 0 to 40:
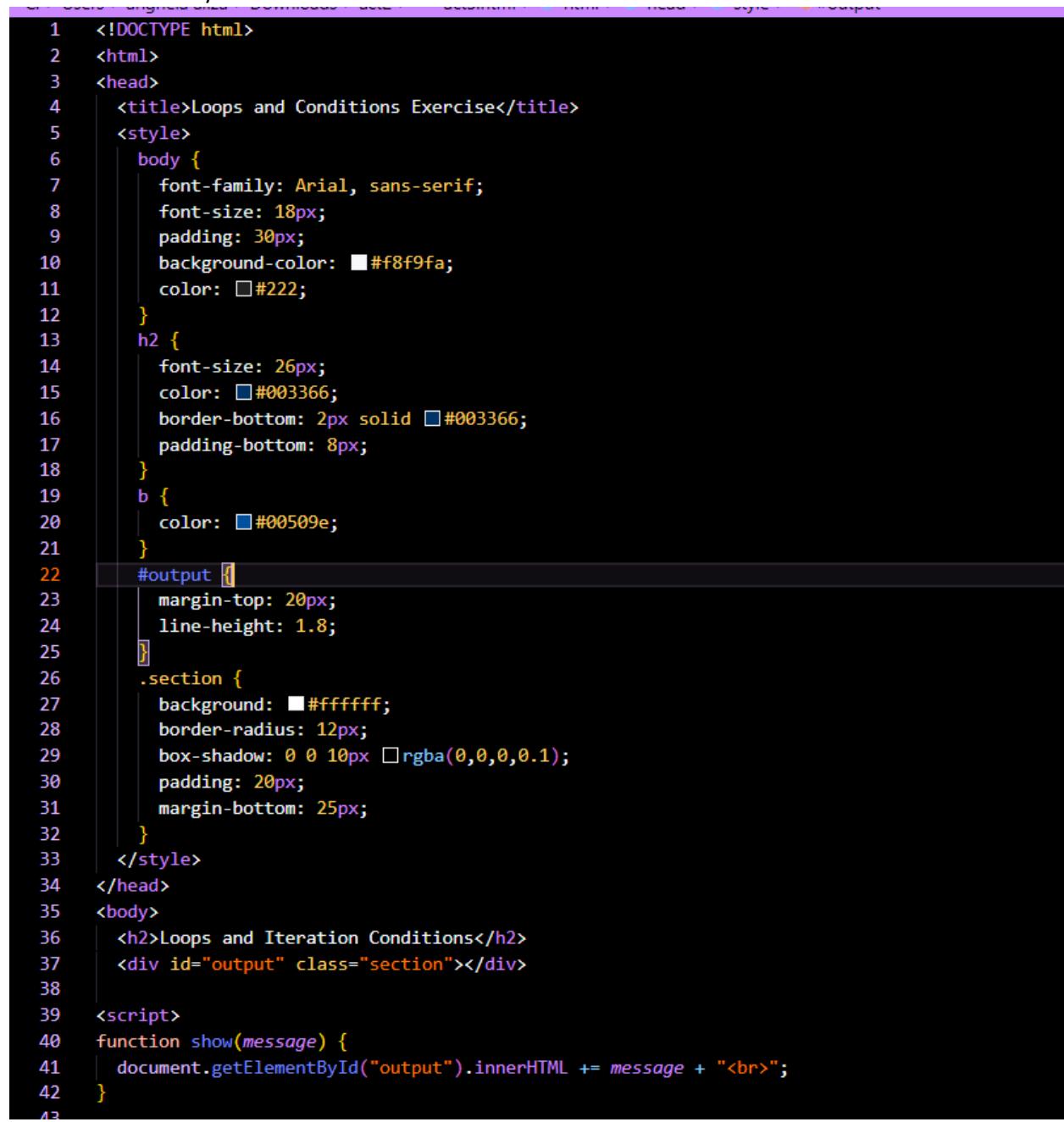
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40

Numbers from 40 to 10 that are multiples of 3:

39
36
33
30
27
24
21
18
15
12

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Screenshot of the syntax:

```
1   <!DOCTYPE html>
2   <html>
3   <head>
4     <title>Loops and Conditions Exercise</title>
5     <style>
6       body {
7         font-family: Arial, sans-serif;
8         font-size: 18px;
9         padding: 30px;
10        background-color: ■#f8f9fa;
11        color: □#222;
12      }
13      h2 {
14        font-size: 26px;
15        color: ■#003366;
16        border-bottom: 2px solid ■#003366;
17        padding-bottom: 8px;
18      }
19      b {
20        color: ■#00509e;
21      }
22      #output {
23        margin-top: 20px;
24        line-height: 1.8;
25      }
26      .section {
27        background: ■#ffffff;
28        border-radius: 12px;
29        box-shadow: 0 0 10px □rgba(0,0,0,0.1);
30        padding: 20px;
31        margin-bottom: 25px;
32      }
33    </style>
34  </head>
35  <body>
36    <h2>Loops and Iteration Conditions</h2>
37    <div id="output" class="section"></div>
38
39  <script>
40  function show(message) {
41    document.getElementById("output").innerHTML += message + "<br>";
42  }
43
```

```javascript
44    // IF and IF...ELSE Statements
45    const age = parseInt(prompt("Please enter your age:"));
46
47    if (isNaN(age)) {
48      alert("You did not enter a valid number.");
49      show("You did not enter a valid number for age.");
50    } else if (age >= 25) {
51      alert("You are 25 years old and up.");
52      show("You are 25 years old and up.");
53    } else {
54      alert("You are below 25 years old.");
55      show("You are below 25 years old.");
56    }
57
58    const number = parseInt(prompt("Please enter a number less than 100:"));
59
60    if (isNaN(number)) {
61      alert("That is not a valid number.");
62      show("That is not a valid number.");
63    } else if (number < 100) {
64      alert("You entered a number less than 100.");
65      show("You entered a number less than 100.");
66    } else {
67      alert("You did not enter a number less than 100.");
68      show("You did not enter a number less than 100.");
69    }
```

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```
70
71    // FOR LOOPS
72    show("<div class='section'><b>Numbers from 0 to 30:</b>");
73    for (let i = 0; i <= 30; i++) {
74      show(i);
75    }
76    show("</div>");
77
78    show("<div class='section'><b>Even numbers from 0 to 40:</b>");
79    for (let i = 0; i <= 40; i++) {
80      if (i % 2 === 0) show(i);
81    }
82    show("</div>");
83
84    show("<div class='section'><b>Numbers from 40 to 10 that are multiples of 3:</b>");
85    for (let i = 40; i >= 10; i--) {
86      if (i % 3 === 0) show(i);
87    }
88    show("</div>");
89    </script>
90    </body>
91    </html>
92
```

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With explanation:

```html
1   <!DOCTYPE html>
2   <html>
3   <head>
4     <title>Loops and Conditions Exercise</title>
5
6     <!-- ==================== PAGE DESIGN (CSS) ==================== -->
7     <style>
8       /* Sets overall font style, size, and page colors */
9       body {
10        font-family: Arial, sans-serif;
11        font-size: 18px;
12        padding: 30px;
13        background-color: #f8f9fa;
14        color: #222;
15      }
16
17      /* Styles the main heading */
18      h2 {
19        font-size: 26px;
20        color: #003366;
21        border-bottom: 2px solid #003366;
22        padding-bottom: 8px;
23      }
24
25      /* Makes bold text titles blue */
26      b {
27        color: #00509e;
28      }
29
30      /* Adds spacing and line height for better readability */
31      #output {
32        margin-top: 20px;
33        line-height: 1.8;
34      }
35
36      /* Creates white boxes with shadow around each output section */
37      .section {
38        background: #ffffff;
39        border-radius: 12px;
40        box-shadow: 0 0 10px rgba(0,0,0,0.1);
41        padding: 20px;
42        margin-bottom: 25px;
43      }
44    </style>
45  </head>
```

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```html
 2   <html>
46   <body>
48
49     <!-- Output area where results will appear -->
50     <div id="output" class="section"></div>
51
52   <script>
53   /* ============================================================
54      Helper function: Displays messages on the web page
55      ============================================================ */
56   function show(message) {
57     document.getElementById("output").innerHTML += message + "<br>";
58   }
59
```

```html
2    <html>
46   <body>
52   <script>
60   /* ============================================================
61      | PART 1: IF and IF...ELSE STATEMENTS
62      | - This section checks user input using conditional statements.
63      | ============================================================ */
64
65   // Ask for user's age
66   const age = parseInt(prompt("Please enter your age:"));
67
68   // Checks if input is not a number
69   if (isNaN(age)) {
70     alert("You did not enter a valid number.");
71     show("You did not enter a valid number for age.");
72   }
73   // If age is 25 or above
74   else if (age >= 25) {
75     alert("You are 25 years old and up.");
76     show("You are 25 years old and up.");
77   }
78   // If age is below 25
79   else {
80     alert("You are below 25 years old.");
81     show("You are below 25 years old.");
82   }
83
84   // Ask for a number less than 100
85   const number = parseInt(prompt("Please enter a number less than 100:"));
86
87   // Check if input is not a number
88   if (isNaN(number)) {
89     alert("That is not a valid number.");
90     show("That is not a valid number.");
91   }
92   // If number is less than 100
93   else if (number < 100) {
94     alert("You entered a number less than 100.");
95     show("You entered a number less than 100.");
96   }
97   // If number is 100 or more
98   else {
99     alert("You did not enter a number less than 100.");
100    show("You did not enter a number less than 100.");
101  }
```

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```
  2   <html>
 46   <body>
 52   <script>
102
103   /* ============================================================
104      PART 2: FOR LOOPS
105      - This section uses loops to print numbers based on conditions.
106      ============================================================ */
107
108   // (a) Print numbers from 0 to 30
109   show("<div class='section'><b>Numbers from 0 to 30:</b>");
110   for (let i = 0; i <= 30; i++) {
111     show(i); // Prints each number
112   }
113   show("</div>");
114
115   // (b) Print only even numbers from 0 to 40
116   show("<div class='section'><b>Even numbers from 0 to 40:</b>");
117   for (let i = 0; i <= 40; i++) {
118     if (i % 2 === 0) show(i); // Prints only numbers divisible by 2
119   }
120   show("</div>");
121
122   // (c) Print numbers from 40 to 10 that are multiples of 3
123   show("<div class='section'><b>Numbers from 40 to 10 that are multiples of 3:</b>");
124   for (let i = 40; i >= 10; i--) {
125     if (i % 3 === 0) show(i); // Prints only numbers divisible by 3
126   }
127   show("</div>");
128
129
130   </script>
131   </body>
132   </html>
133
```