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3rd Year Section B (B1)

Practical 3 (JavaScript)

TASK 1(Print Even numbers using for loop)

```
task1.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4      <h3>Even Numbers</h3>
5      <script>
6          const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];
7          for (let i = 0; i < numbers.length; i++) {
8              if (numbers[i] % 2 === 0) {
9                  document.write(numbers[i] + "<br>");
10             }
11         }
12     </script>
13 </body>
14 </html>
15
```

Even Numbers

2
4
6
8
10

TASK 2(Find Longest String in an Array
html)

```
task2.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Longest String</h3>
5    <script>
6      const words = ["apple", "banana", "grapefruit", "kiwi"];
7      let longest = "";
8
9      for (let i = 0; i < words.length; i++) {
10        if (words[i].length > longest.length) {
11          longest = words[i];
12        }
13      }
14
15      document.write("Longest word is: " + longest);
16    </script>
17  </body>
18  </html>
19
```

Longest String

Longest word is: grapefruit

TASK 3(Print All Odd Numbers from 1 to n Using While Loop)

```
task3.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4      <h3>Odd Numbers to n</h3>
5      <script>
6          let n = 15;
7          let i = 1;
8
9          while (i <= n) {
10             if (i % 2 !== 0) {
11                 document.write(i + "<br>");
12             }
13             i++;
14         }
15     </script>
16 </body>
17 </html>
18
```

Odd Numbers to n

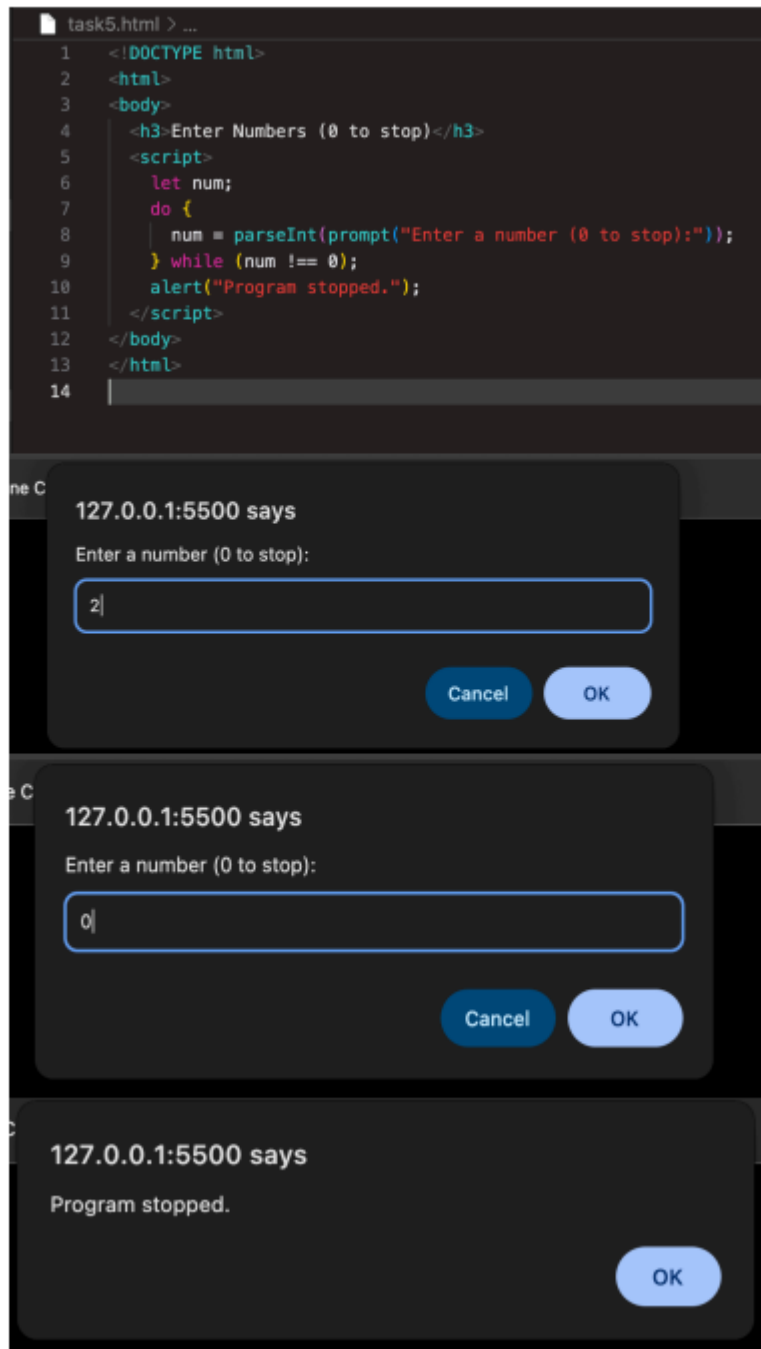
1
3
5
7
9
11
13
15

```
task4.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Fibonacci up to n</h3>
5    <script>
6      let a: number
7      let a = 0, b = 1;
8
9      while (a <= n) {
10         document.write(a + "<br>");
11         let temp = a + b;
12         a = b;
13         b = temp;
14      }
15    </script>
16  </body>
17  </html>
18
```

Fibonacci up to n

0
1
1
2
3
5
8
13
21
34

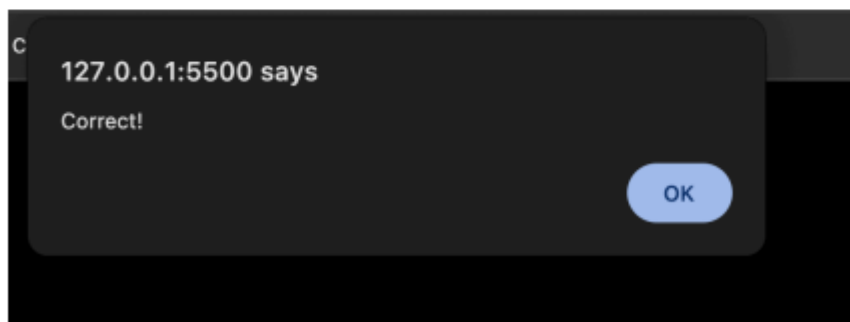
Task 5(Stop When User Enters 0)



Task 6(Guess Number Between 1 and 100)

```
task6.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Guess the Number</h3>
5    <script>
6      const target = Math.floor(Math.random() * 100) + 1;
7      let guess;
8
9      while (guess !== target) {
10         guess = parseInt(prompt("Guess a number between 1 and 100:"));
11
12         if (guess > target) {
13             alert("Too high!");
14         } else if (guess < target) {
15             alert("Too low!");
16         } else {
17             alert("Correct!");
18         }
19     }
20 </script>
21 </body>
22 </html>
23
```

Guessed number was 28



TASK 7(Ask for Input Until "exit" (do-while))

The screenshot shows a web browser window with a dark theme. The address bar displays "127.0.0.1:5500". The page content includes a heading "Input Until 'exit'" and a JavaScript script. The script uses a do-while loop to repeatedly prompt the user for input until they enter "exit".

```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h3>Input Until 'exit'</h3>
5   <script>
6     let input;
7     do {
8       input = prompt("Enter something (type 'exit' to stop):");
9     } while (input !== "exit");
10    alert("You exited.");
11  </script>
12 </body>
13 </html>
```

The first dialog box shows the prompt "Enter something (type 'exit' to stop):" with the input field containing "stop". The "Cancel" button is highlighted.

The second dialog box shows the same prompt, but the input field now contains "exit". The "OK" button is highlighted.

The third dialog box shows the alert message "You exited." with the "OK" button highlighted.

```
task8.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Reverse Array</h3>
5    <script>
6      const arr = [1, 2, 3, 4, 5];
7      let i = arr.length - 1;
8
9      document.write("Reversed Array: <br>");
10     do {
11       document.write(arr[i] + "<br>");
12       i--;
13     } while (i >= 0);
14   </script>
15 </body>
16 </html>
17
```

Reverse Array

Reversed Array:

5
4
3
2
1

TASK 9(Multiplication Table (1 to 10))

```
task9.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Multiplication Table</h3>
5    <script>
6      for (let i = 1; i <= 10; i++) {
7        document.write("Table for " + i + "<br>");
8        for (let j = 1; j <= 10; j++) {
9          document.write(i + " x " + j + " = " + (i * j) + "<br>");
10        }
11        document.write("<br>");
12      }
13    </script>
14  </body>
15  </html>
16
```

Multiplication Table

Table for 1:

1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10

Table for 2:

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20

TASK 10(Factorial Until User Types "exit")

The image shows a web browser window with a dark theme. The top part displays the source code of a file named 'task10.html'. The code is an HTML document with a script that calculates the factorial of a user-input number. The script uses a while loop to repeatedly prompt the user for input until they enter 'exit'. Once a valid number is entered, it calculates the factorial using a for loop and displays the result in an alert box.

```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h3>Factorial Calculator</h3>
5   <script>
6     let input;
7     while (true) {
8       input = prompt("Enter a number (or 'exit' to stop):");
9       if (input === "exit") break;
10
11       let num = parseInt(input);
12       let fact = 1;
13       for (let i = 1; i <= num; i++) {
14         fact *= i;
15       }
16       alert("Factorial of " + num + " is " + fact);
17     }
18   </script>
19 </body>
20 </html>
21
```

Below the code, the browser shows two alert dialogs. The first dialog, titled '127.0.0.1:5500 says', displays the message 'Factorial of 3 is 6' and has an 'OK' button. The second dialog, also titled '127.0.0.1:5500 says', displays the prompt 'Enter a number (or 'exit' to stop):' and has a text input field containing 'exit|'. It also has 'Cancel' and 'OK' buttons.

TASK 11(Guessing Game with do-while Loop (1 to 10))

```
TASK11.html > ...
1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h3>Guessing Game</h3>
5    <script>
6      const randomNumber = Math.floor(Math.random() * 10) + 1;
7      let guess;
8
9      do {
10       guess = parseInt(prompt("Guess a number between 1 and 10:"));
11       if (guess < randomNumber) {
12         alert("Too low!");
13       } else if (guess > randomNumber) {
14         alert("Too high!");
15       }
16     } while (guess !== randomNumber);
17
18     alert("Correct! You guessed it.");
19   </script>
20 </body>
21 </html>
22
```

127.0.0.1:5500 says

Guess a number between 1 and 10:

Cancel OK

127.0.0.1:5500 says

Correct! You guessed it.

OK