Name: Mukund Kuthe

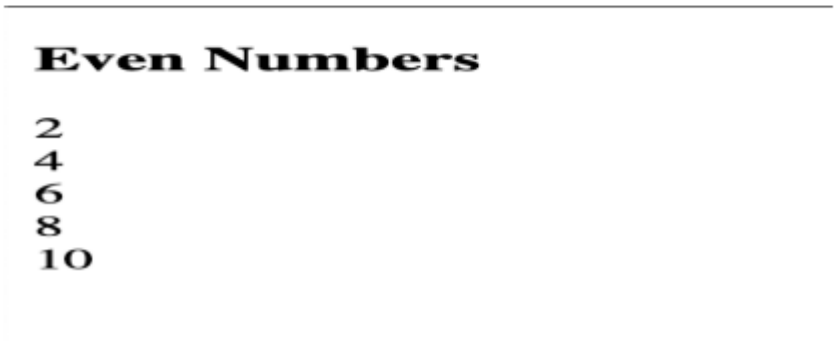
3rd Year Section B (B1)

Practical 3 (JavaScript)

TASK 1(Print Even numbers using for loop)

task1.html > ...

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



TASK 2(Find Longest String in an Array
html)

task2.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Longest String</h3>
  <script>
    const words = ["apple", "banana", "grapefruit", "kiwi"];
    let longest = "";

    for (let i = 0; i < words.length; i++) {
      if (words[i].length > longest.length) {
        longest = words[i];
      }
    }

    document.write("Longest word is: " + longest);
  </script>
</body>
</html>
```

Longest String

Longest word is: grapefruit

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

task3.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Odd Numbers to n</h3>
  <script>
    let n = 15;
    let i = 1;

    while (i <= n) {
      if (i % 2 !== 0) {
        document.write(i + "<br>");
      }
      i++;
    }
  </script>
</body>
</html>
```

Odd Numbers to n

1
3
5
7
9
11
13
15

Task4(Fibonacci Numbers Up to n)

task4.html > ...

```
<!DOCTYPE html>
<html>
<body>
  <h3>Fibonacci up to n</h3>
  <scrip
    let
    let a = 0, b = 1;

    while (a <= n) {
      document.write(a + "<br>");
      let temp = a + b;
      a = b;
      b = temp;
    }
  </script>
</body>
</html>
```

let a: number

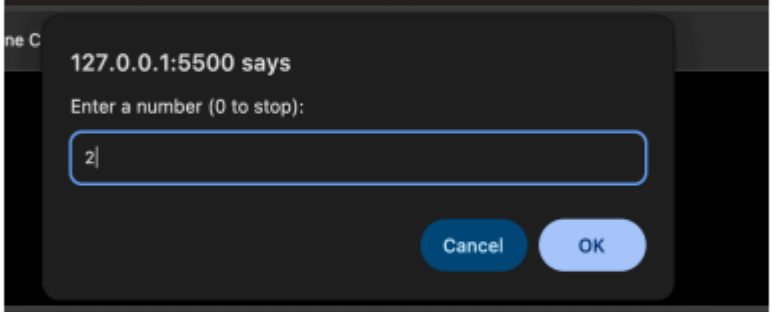
Fibonacci up to n

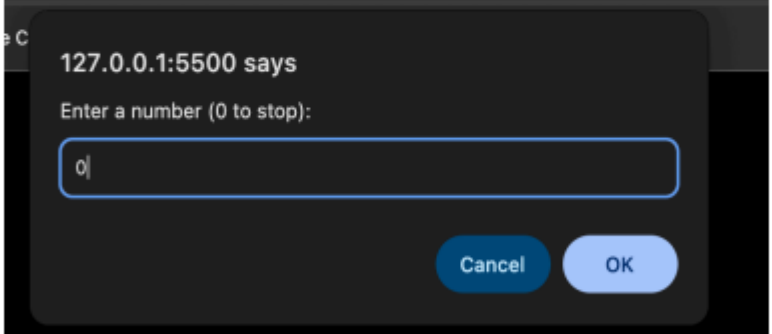
0
1
1
2
3
5
8
13
21
34

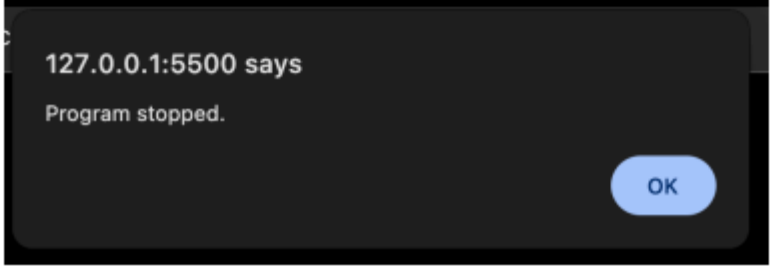
Task 5(Stop When User Enters 0)

task5.html > ...

```
<!DOCTYPE html>
<html>
<body>
  <h3>Enter Numbers (0 to stop)</h3>
  <script>
    let num;
    do {
      num = parseInt(prompt("Enter a number (0 to stop):"));
    } while (num !== 0);
    alert("Program stopped.");
  </script>
</body>
</html>
```







Task 6(Guess Number Between 1 and 100)

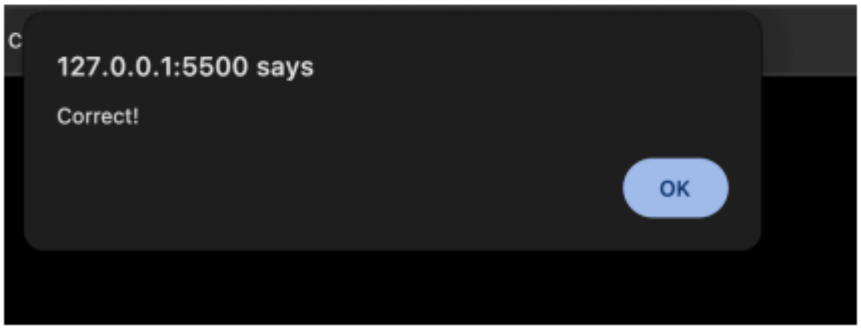
task6.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Guess the Number</h3>
  <script>
    const target = Math.floor(Math.random() * 100) + 1;
    let guess;

    while (guess !== target) {
      guess = parseInt(prompt("Guess a number between 1 and 100:"));

      if (guess > target) {
        alert("Too high!");
      } else if (guess < target) {
        alert("Too low!");
      } else {
        alert("Correct!");
      }
    }
  </script>
</body>
</html>
```

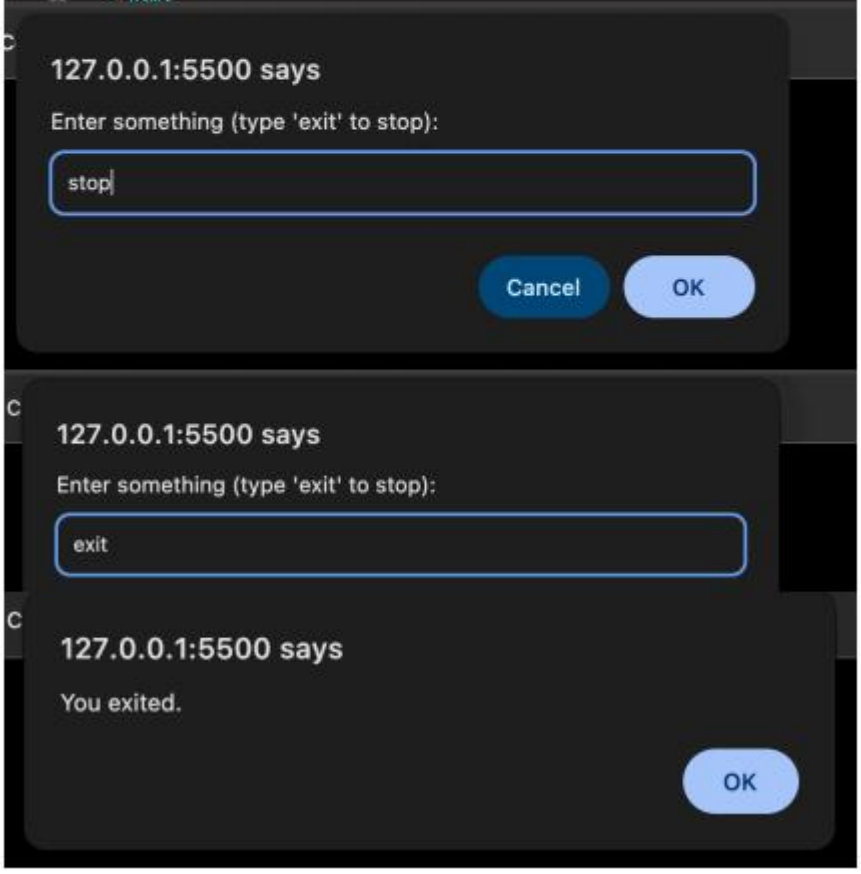
Guessed number was 28



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

task7.html > ...

```
<!DOCTYPE html>
<html>
<body>
  <h3>Input Until 'exit'</h3>
  <script>
    let input;
    do {
      input = prompt("Enter something (type 'exit' to stop):");
    } while (input !== "exit");
    alert("You exited.");
  </script>
</body>
</html>
```



TASK 8(Reverse Array Using do-while Loop)

task8.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Reverse Array</h3>
  <script>
    const arr = [1, 2, 3, 4, 5];
    let i = arr.length - 1;

    document.write("Reversed Array: <br>");
    do {
      document.write(arr[i] + "<br>");
      i--;
    } while (i >= 0);
  </script>
</body>
</html>
```

Reverse Array

Reversed Array:
5
4
3
2
1

TASK 9(Multiplication Table (1 to 10))

task9.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Multiplication Table</h3>
  <script>
    for (let i = 1; i <= 10; i++) {
      document.write("Table for " + i + ":<br>");
      for (let j = 1; j <= 10; j++) {
        document.write(i + " x " + j + " = " + (i * j) + "<br>");
      }
      document.write("<br>");
    }
  </script>
</body>
</html>
```

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

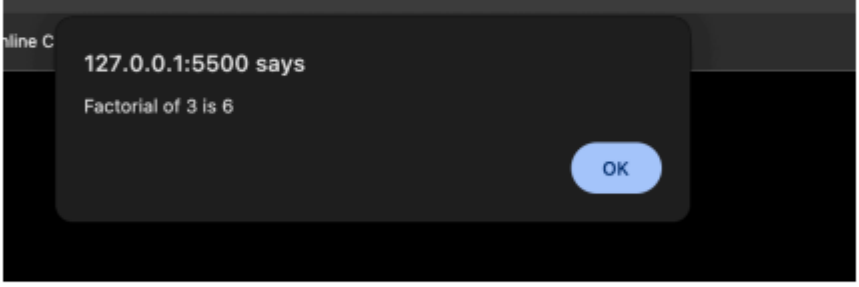
TASK 10(Factorial Until User Types "exit")

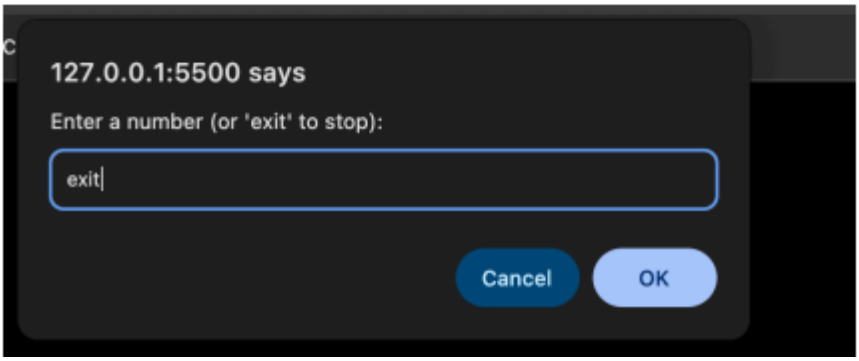
task10.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Factorial Calculator</h3>
  <script>
    let input;
    while (true) {
      input = prompt("Enter a number (or 'exit' to stop):");
      if (input === "exit") break;

      let num = parseInt(input);
      let fact = 1;
      for (let i = 1; i <= num; i++) {
        fact *= i;
      }
      alert("Factorial of " + num + " is " + fact);
    }
  </script>
</body>
</html>

```





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

TASK11.html > ...

```html
<!DOCTYPE html>
<html>
<body>
  <h3>Guessing Game</h3>
  <script>
    const randomNumber = Math.floor(Math.random() * 10) + 1;
    let guess;

    do {
      guess = parseInt(prompt("Guess a number between 1 and 10:"));
      if (guess < randomNumber) {
        alert("Too low!");
      } else if (guess > randomNumber) {
        alert("Too high!");
      }
    } while (guess !== randomNumber);

    alert("Correct! You guessed it.");
  </script>
</body>
</html>
```