30_Days_of_Javascript

Day 4: Loops

Tasks/Activities:

Activity 1 : For Loop

- **Task 1:** Write a program to print numbers from 1 to 10 using a for loop.
- **Task 2:** Write a program to print the multiplication table of 5 using a for loop.

Activity 2: While Loop

- **Task 3**: Write a program to calculate the sum of numbers from 1 to IO using a while loop.
- **Task 4:** Write a program to print numbers from 10 to 1 using a while loop.

Activity 3: Do...While Loop

- **Task 5:** Write a program to print numbers from 1 to 5 using a do.. .while loop.
- **Task 6:** Write a program to calculate the factorial of a number using a do.. .while loop.

Activity 4: Nested Loops

• **Task 7:** Write a program to print a pattern using nested for loops:

(ignore color)

Activity 5: Loop Control Statements

- **Task 8:** Write a program to print numbers from 1 to 10, but skip the number 5 using the continue statement.
- **Task 9:** Write a program to print numbers from 1 to 10, but stop the loop when the number is 7 using the break statement.

Feature Request:

1 **Number Printing Script:** Write a script that prints numbers from 1 to 10 using a for loop and a while loop.
2 **Multiplication Table Script:** Create a script that prints the multiplication table of 5 using a for loop.
3 **Pattern Printing Script:** Write a script that prints a pattern of stars using nested loops.
4 **Sum Calculation Script:** Write a script that calculates the sum of numbers from 1 to IO using a while loop.
5 **Factorial Calculation Script:** Create a script that calculates the factorial of a number using a do...while loop.

Achievement:

By the end of these activities, students will:

- Understand and use for loops to iterate over a sequence of numbers.
- Utilize while loops for iteration based on a condition.
- Apply do. ..while loops to ensure the loop body is executed at least once.
- Implement nested loops to solve more complex problems.
- Use loop control statements (break and continue) to control the flow of loops.