

# 30\_Days\_of\_Javascript

## Day 5: Functions

Tasks/Activities:

### Activity 1 : Function Declaration

- **Task 1:** Write a function to check if a number is even or odd and log the result to the console.
- **Task 2:** Write a function to calculate the square of a number and return the result.

### Activity 2: Function Expression

- **Task 3:** Write a function expression to find the maximum of two numbers and log the result to the console.
- **Task 4:** Write a function expression to concatenate two strings and return the result.

### Activity 3: Arrow Functions

- **Task 5:** Write an arrow function to calculate the sum of two numbers and return the result.
- **Task 6:** Write an arrow function to check if a string contains a specific character and return a boolean value.

### Activity 4: Function Parameters and Default Values

- **Task 7:** Write a function that takes two parameters and returns their product. Provide a default value for the second parameter.
- **Task 8:** Write a function that takes a person's name and age and returns a greeting message. Provide a default value for the age.

### Activity 5: Higher-Order Functions

- **Task 9:** Write a higher-order function that takes a function and a number, and calls the function that many times.
- **Task 10:** Write a higher-order function that takes two functions and a value, applies the first function to the value, and then applies the second function to the result.

### Feature Request:

1. **Even or Odd Function Script:** Write a script that includes a function to check if a number is even or odd and logs the result.
2. **Square Calculation Function Script:** Create a script that includes a function to calculate the square of a number and returns the result.
3. **Concatenation Function Script:** Write a script that includes a function expression to concatenate two strings and returns the result.
4. **Sum Calculation Arrow Function Script:** Create a script that includes an arrow function to calculate the sum of two numbers and returns the result.
5. **Higher-Order Function Script:** Write a script that includes a higher-order function to apply a given function multiple times.

### Achievement:

By the end of these activities, students will:

- Understand and define functions using function declarations, expressions, and arrow functions.
- Use function parameters and default values effectively.
- Create and utilize higher-order functions.
- Apply functions to solve common problems and perform calculations.
- Enhance code reusability and organization using functions.