JavaScript Loops

Duration: 4 Hour

1-JavaScript Loops

Basic

1. **Use a for loop to print numbers from 1 to 10 using for.**

```
Example:
    Output: 1 2 3 4 5 6 7 8 9 10
```

2. **Use a while loop to print numbers from 1 to 10 using while.**

```
Example:
    Output: 1 2 3 4 5 6 7 8 9 10
```

3. **Use a for loop to iterate through an array and print each element.**

```
Example:
    Input: [1, 2, 3, 4, 5];
    Output: 1 2 3 4 5
```

4. **Use a for loop to print even numbers from 0 to 10.**

```
Example:
    Output: 0 2 4 6 8 10
```

5. **Use a for loop to print the sum of numbers from 1 to 10.**

```
Output: 55
```

6. **Use a for loop to find the largest number in an array.**

```
Example:
Input: [1, 2, 3, 4, 5];
Output: 5
```

7. Use a for loop to find the smallest number in an array.

```
8.    Example:
9.       Input: [5, 4, 3, 2, 1];
10.      Output: 1
```

11. Use a for loop to find the average of numbers in an array

```
Example:
   Input: [1, 2, 3, 4, 5];
   Output: 3
```

Mid

12. Use a for loop to find the factorial of a number.

```
Example:
    Input: 5;
    Output: 120
```

13. Use a for loop to print the Fibonacci sequence up to a given number.

```
Example:
    Input: 10;
    Output: 0 1 1 2 3 5 8
```

14. Use a for loop to print the prime numbers up to a given number.

```
Example:
Input: 20;
Output: 2 3 5 7 11 13 17 19
```

15. Use a for loop to print a multiplication table for a given number .

```
Example:
Input: 5;
Output: 5 x 1 = 5, 5 x 2 = 10, 5 x 3 = 15, ..., 5 x 10 = 50
```

Advanced

16. Use a for loop to print the elements of a 2D array .

```
Example:
Input: [[1, 2, 3], [4, 5, 6], [7, 8, 9]];
Output: 1 2 3 4 5 6 7 8 9
```

17. Use a for loop to print the elements of an array in reverse order.

```
Example:
Input: [1, 2, 3, 4, 5];
Output: 5 4 3 2 1
```

18. Use a for loop to print the elements of an array in a specific range.

```
Example:
Input: [1, 2, 3, 4, 5], 2, 4;
Output: 3 4 5
```

19. Use a for loop to print the elements of an array with a specific step.

```
Example:
Input: [1, 2, 3, 4, 5], 2;
Output: 1 3 5
```

20. Use a for loop to check if a number is in an array.

```
Example:
Input: [1, 2, 3, 4, 5], 4;
Output: true
```

21. Use a for loop to find the frequency of a number in an array.

```
Example:
Input: [1, 2, 1, 3, 2, 1], 1;
Output: 3
```