TW-10 GROUP VERSION

TEAMWORK

CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

- Icebreaking
- Workshop Activities
  - Questions
- Teamwork Activities
  - Interview Questions
  - Video of the week
  - Case study / project
- Retro meeting

Workshop Activities 90m

Ask Questions 30m

1. How do you add an element to the end of a JavaScript array?

A. add() method
B. append() method
C. insert() method
D. push() method

2. How can you access the first element of a JavaScript array?

A. myArray.first()
B. myArray.get(0)
C. myArray[0]
D. myArray.element(0)

3. How do you remove a specific element from a JavaScript array?

A. remove() method
B. splice() method
C. delete() method
D. pop() method

4. What method is used to add elements to the beginning of a JavaScript array?

A. append()
B. shift()
C. push()
D. unshift()

5. How do you find the index of the last occurrence of a specific element in a JavaScript array?

A. indexOf()
B. lastIndexOf()
C. findLastIndex()
D. searchLastIndex()

6. How can you find the intersection of two JavaScript arrays (common elements in both arrays)?

A. Using the filter() method
B. Using a for loop
C.Using the intersection() method
D. Using the reduce() method

7. What method is used to find the sum of all elements in a JavaScript array?

A. sum()
B. reduce()
C. total()
D. aggregate()

8. How can you add an element to the beginning of an array and return the new length of the array?

A. Using the shift() method
B. Using the push() method
C. Using the unshift() method
D. Using the pop() method

9. Write a js code that will uniqe the elements of the array containing repetitive elements.

```
function removeDuplicates(arr) {

  //Your code here

  return uniqueArray;
}

const arrayWithDuplicates = [1, 2, 2, 3, 4, 4, 5];
const uniqueArray = removeDuplicates(arrayWithDuplicates);
// uniqueArray will be [1, 2, 3, 4, 5]
```

10. What does the map method do in JavaScript arrays?

A. Modifies the original array
B. Creates a new array by applying a function to each element
C. Removes elements from the array
D. Concatenates two arrays

11. What does the forEach method do in JavaScript arrays?

A. Creates a new array
B. Removes elements from the array
C. Checks if any element satisfies a condition
D. Applies a function to each element without modifying the array

12. How does the filter method work in JavaScript arrays?

A. Modifies the original array
B. Adds elements to the array
C. Creates a new array by removing elements that don't satisfy a condition
D. Sorts the array

13. What is the result of using the map method on an empty array?

A. An empty array
B. undefined
C. It throws an error
D. A mapped array with null values

14. Which method is used to convert a string to an array in JavaScript?

A. join
B. concat
C. reverse
D. split

15. How do you access a property of an object in JavaScript?

A. By using square brackets
B. By using the dot notation
C. By using parentheses
D. By using commas

16. How do you check if a property exists in an object in JavaScript?

A. By using the exist keyword
B. By using the contains keyword
C. By using the hasOwnProperty method
D. By using the isProperty method

17. How do you delete a property from an object in JavaScript

A. By using the `delete` keyword
B. By using the `remove` keyword
C. By setting the property value to null
D. By assigning an empty string to the property

18. How do you add a new property to an existing object in JavaScript

A. By using the `add` keyword
B. By using the `insert` keyword
C. By using the `update` keyword
D. By assigning a value to a new key

19. What is an object in JavaScript?

A. A function
B. A data tool
C. A data structure
D. An array

20. How can you create an empty object in JavaScript?

A. `emptyObject = {};`
B. `emptyObject = new Empty();`
C. `emptyObject = Object.empty();`
D. `emptyObject = new Object();`

Teamwork Schedule

Ice-breaking 10m

- Personal Questions (Study Environment, Kids etc.)
- Any challenges (Classes, Coding, studying, etc.)
- Ask how they're studying, give personal advice.
- Remind that practice makes perfect.

Interview Questions 30m

1. What is the difference between .map() and .forEach()?

2. What is the difference between slice and splice?

3. Explain `reduce()` method in Javascript

4. What is an object in JavaScript?

5. Explain the difference between dot notation and bracket notation when accessing object properties.

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Coffee Break 10m

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Video of the Week 10m

- forEach() method

Coding Challenge 40m

Find the Missing Number

- You are given an array containing n distinct numbers taken from the range 1 to n+1. The array is missing one number. Write a function to find and return the missing number.

```
function findMissingNumber(arr) {
    // Your code here
}

// Example usage:
const missingNumber = findMissingNumber([1, 2, 4, 6, 3, 7, 8]);
console.log(missingNumber); // Output: 5
```

- Challenge Description:

Write a function findMissingNumber that takes an array arr as an argument. The array contains n distinct numbers taken from the range 1 to n+1. It means that one number is missing from the array. Your task is to find and return that missing number.

- Constraints:
    - The array will always have at least one element.
    - The numbers in the array are distinct and taken from the range 1 to n+1, where n is the length of the array.
- Note: You can assume that there will always be exactly one missing number.

Rotate Array of Objects

- Write a function that rotates an array of objects to the right by a given number of steps.

```
function rotateArrayObjects(arr, steps) {
    // Your code here
}

// Example usage:
const inputArray = [
    { id: 1, name: 'John' },
    { id: 2, name: 'Jane' },
    { id: 3, name: 'Bob' },
    { id: 4, name: 'Alice' }
];

const rotatedArray = rotateArrayObjects(inputArray, 2);
console.log(rotatedArray);
/*
Output: [
    { id: 3, name: 'Bob' },
    { id: 4, name: 'Alice' },
    { id: 1, name: 'John' },
    { id: 2, name: 'Jane' }
]
*/
```

- Challenge Description:
    - Write a function rotateArrayObjects that takes an array of objects arr and an integer steps as input. The function should rotate the elements of the array to the right by the given number of steps. The order of objects should be maintained during rotation.
- Constraints:
    - The array can contain both objects and other data types.
    - The number of steps will be a non-negative integer.

Retro Meeting on a personal and team level 10m

Ask the questions below:

- What went well?
- What could be improved?
- What will we commit to do better in the next week?

Closing 10m

- Next week's plan
- QA Session
