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**FULL STACK DEVELOPMENT COURSE**

**DAY 3 TASK**

1. **Do the below programs in anonymous function & IIFE:**
2. **Print odd numbers in an array**

**Program:**

var numbers=[1,2,3,4,5,6,7,8,9,10]

var printoddnumbers = function(arr)

{

for(var i= 0;i<arr.length;i++)

{

if(arr[i]%2!==0)

{

console.log(arr[i]) }}}

printoddnumbers(numbers)

**OUTPUT:**

**1**

**3**

**5**

**7**

**9**

**B) CONVERT ALL THE STRINGS TO TITLE CAPS IN A STRING ARRAY**

**Program:**

var strings = ["hello world", "this is a test", "javascript programming"];

var convertToTitleCase = function(arr) {

for (var i = 0; i < arr.length; i++) {

var words = arr[i].split(" ");

for (var j = 0; j < words.length; j++) {

words[j] = words[j].charAt(0).toUpperCase() + words[j].slice(1);

}

arr[i] = words.join(" ");

}

return arr;

}

var titleCaseStrings = convertToTitleCase(strings);

console.log(titleCaseStrings);

**OUTPUT:**

[ 'Hello World', 'This Is A Test', 'Javascript Programming' ]

**C.) SUM OF ALL NUMBERS IN AN ARRAY**

**PROGRAM:**

(function() {

const numbers = [1, 2, 3, 4, 5];

const sum = function(arr) {

let total = 0;

for (let i = 0; i < arr.length; i++) {

total += arr[i];

}

return total;

};

const result = sum(numbers);

console.log("Sum of all numbers:", result);

})();

**OUTPUT:**

Sum of all numbers: 15

**D.)RETURN ALL THE PRIME NUMBERS IN AN ARRAY:**

**PROGRAM:**

(function() {

var numbers = [2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31];

var primes = numbers.filter(function(number) {

if (number <= 1) return false;

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log("Prime numbers:", primes);

})();

**OUTPUT:**

Prime numbers: [ 2,

3,

5,

7,

11,

13,

17,

19,

23,

29,

31 ]

**E) RETURN ALL THE PALINDROMES IN AN ARRAY**

**PROGRAM:**

(function() {

const array = ["level", "hello", "radar", "apple", "stats", "banana"];

const palindromes = array.filter(word => {

const reversedWord = word.split('').reverse().join('');

return word === reversedWord;

});

console.log("Palindromes in the array:", palindromes);

})();

**Output:**

Palindromes in the array: [ 'level', 'radar', 'stats' ]

**F.) RETURN MEDIAN OF TWO SORTED ARRAYS OF THE SAME SIZE.**

**PROGRAM:**

(function() {

const arr1 = [1, 3, 5, 7, 9];

const arr2 = [2, 4, 6, 8, 10];

const findMedianSortedArrays = (nums1, nums2) => {

const mergedArray = [...nums1, ...nums2];

mergedArray.sort((a, b) => a - b);

const length = mergedArray.length;

const midIndex = Math.floor(length / 2);

if (length % 2 === 0) {

return (mergedArray[midIndex - 1] + mergedArray[midIndex]) / 2;

} else {

return mergedArray[midIndex];

}

};

const median = findMedianSortedArrays(arr1, arr2);

console.log("Median of the two sorted arrays:", median);

})();

**Output:**

Median of the two sorted arrays: 5.5

**G). REMOVE DUPLICATES FROM AN ARRAY**

**Program:**

(function() {

const array = [1, 2, 3, 4, 2, 3, 5, 6, 1, 7, 8, 8];

const uniqueArray = (function(arr) {

return arr.filter((item, index) => arr.indexOf(item) === index);

})(array);

console.log("Array with duplicates removed:", uniqueArray);

})();

##### Output:

Array with duplicates removed: [ 1, 2, 3, 4, 5, 6, 7, 8 ]

**H). ROTATE AN ARRAY BY K TIMES:**

**Program:**

(function() {

const array = [1, 2, 3, 4, 5];

const k = 3;

const rotateArray = (function(arr, k) {

const rotatedArray = [...arr.slice(k), ...arr.slice(0, k)];

return rotatedArray;

})(array, k);

console.log("Array after rotation:", rotateArray);

})();

##### Output:

Array after rotation: [ 4, 5, 1, 2, 3 ]