4.2 DO THE BELOW PROGRAMS IN IIFE

4.2.1 PRINT ODD NUMBERS IN AN ARRAY

```javascript
(function (numbe)  {
    let num =[];
    for (let index in numbe ) {

        if( numbe[index] % 2 === 1) {
            num.push(numbe[index]);
        }
    }
        console.log(num)
})([8, 3, 7, 9, 4, 28, 99, 73, 805, 88, 62, 55]);
```

```
Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
[
   3,   7,  9, 99,
  73, 805, 55
]
```

4.2.2 CONVERT ALL THE STRINGS TO TITLE CAPS IN A STRING ARRAY

```javascript
(function (str)  {
    for (let index in str){

    if (!str){
        console.log('no input');
    }
    str[index] = str[index].toLowerCase().split(' ');
    str1 = str[index]
    for (let i in str1) {
        str1[i] = str1[i].charAt(0).toUpperCase() + str1[i].slice(1);
      // console.log(str1);
    }
    console.log(str1.join(' '));
    }

})(['devil', 'ikigai', 'swordsman', 'silent warrier devil']);
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
Devil
Ikigai
Swordsman
Silent Warrier Devil
```

4.2.3 SUM OF ALL NUMBERS IN AN ARRAY

```javascript
(function (val)  {
    total = 0;
    for (let index in val){
        total = total + val[index];
    }
    console.log(total);
})([2, 4 , 55, 23, 55, 507, 23]);
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
669
```

4.2.4 RETURN ALL PRIME NUMBERS IN AN ARRAY

```javascript
(function()
{
    var isPrime = function(n)
    {
      if (n <= 1) return false;
      for (var i = 2; i <= Math.sqrt(n); i++)
      {
        if (n % i === 0) return false;
      }
      return true;
    };
  var getPrimes = function(array)
    {
      var primes = [];
      for (var i = 0; i < array.length; i++)
      {
        if (isPrime(array[i])) primes.push(array[i]);
      }
      return primes;
    };
    var array = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];
    var primes = getPrimes(array);
    console.log(primes);
}
)();
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\tempCodeRunnerFile.JS"
[ 2, 3, 5, 7 ]
```

4.2.5 RETURN ALL THE PALINDROMES IN AN ARRAY

```
function isPalindrome(str)
{
    const normalizedStr = str.toLowerCase().replace(/[^a-z0-9]/g, '');
    return normalizedStr === normalizedStr.split('').reverse().join('');
}
  function getAllPalindromes(arr)
  {
    return arr.filter(isPalindrome);
  }
  const inputArray = ['racecar', 'madam', 'civic', 'level', 'hype'];
  const palindromes = getAllPalindromes(inputArray);
  console.log(palindromes);
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\tempCodeRunnerFile.JS"
[ 'racecar', 'madam', 'civic', 'level' ]
```

4.2.6 RETURN MEDIAN OF TWO SORTED ARRAYS OF THE SAME SIZE

```
(function(num1, num2) {
    let compare = function(i, j){
        return i - j;
    }
    let arr = num1.concat(num2).sort(compare);
    if (arr.length % 2 == 0){
        console.log((arr[arr.length/2 - 1] + arr[arr.length/2])/2);
    }

})([2, 4, 6] , [8, 9, 7]);
```

```
Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
6.5
```

4.2.7 REMOVE DUPLICATES FROM AN ARRAY

```
let arr = [1, "mango", "apple",
        "orange", "mango", "mango", 1];

let removeDuplicates = (arr)=> {
    return arr.filter((item,
        index) => arr.indexOf(item) === index);
}
console.log(removeDuplicates(arr));
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
[ 1, 'mango', 'apple', 'orange' ]
```

4.2.8 ROTATE AN ARRAY BY K-TIMES

```javascript
(function (a, k) {
  n = a.length;
  let var1 = [];
    for (let i = 0; i < n; i++) {
        if (i < k) {
            var1.push(a[n + i - k] + " ")
        }
        else {
            var1.push(((a[i - k]) + " "));
        }
    }
    console.log(var1.slice().join(' '));
})([1, 2, 3, 4, 5] , 3) ;
```

```
[Running] node "c:\Users\vicky\OneDrive\Desktop\zen\EXAMPLE.JS"
3  4  5  1  2
```