1. Filter unique array members using Set.

let uniqueArray = [...new Set([5,5,2,4,2])];

console.log(uniqueArray);

**[5, 2, 4]**

1. Find the possible combinations of a string and store them in a MAP?

function substrings(str1)

{

var array1 = [];

for (var x = 0, y=1; x < str1.length; x++,y++)

{

array1[x]=str1.substring(x, y);

}

var combi = [];

var temp= "";

var slent = Math.pow(2, array1.length);

for (var i = 0; i < slent ; i++)

{

temp= "";

for (var j=0;j<array1.length;j++) {

if ((i & Math.pow(2,j))){

temp += array1[j];

}

}

if (temp !== "")

{

combi.push(temp);

}

}

console.log(combi.join("\n"));

}

substrings("combinations");

1. Write a program to implement inheritance upto 3 classes.The Class must have public variables and static functions.

let animal = {

sayHi() {

console.log(`I'm an animal`);

}

};

let rabbit = {

\_\_proto\_\_: animal,

sayHi() {

console.log(`I'm a rabbit`);

}

};

let plant = {

\_\_proto\_\_: rabbit,

sayHi: animal.sayHi

};

plant.sayHi();

"I'm an animal"

1. Write a program to implement a class having static functions

<!DOCTYPE html>

<html>

<body>

<p id="demo"></p>

<script>

class Car {

constructor(name) {

this.name = name;

}

static hello() {

return this.name;

}

}

let myCar = new Car("Ford");

document.getElementById("demo").innerHTML = Car.hello();

</script>

</body>

</html>

Car

1. Import a module containing the constants and method for calculating area of circle, rectangle, cylinder.

export function area(radius,length,breadth,height)

{

this.radius = radius;

this.length = length;

this.breadth = breadth;

this.height = height;

this.area\_circle = function ()

{

return Math.PI \* this.radius \* this.radius;

};

this.area\_rectangle = function ()

{

return this.length \* this.breadth;

};

let mul = this.height + this.radius;

this.area\_cylinder = function ()

{

return Math.PI \* 2 \* this.radius \* mul;

};

}

Import { area } from ‘./es6.js’;

var c = new area(3,4,5,6);

console.log('Area =', c.area\_circle().toFixed(2));

console.log('Area =', c.area\_rectangle().toFixed(2));

console.log('Area =', c.area\_cylinder().toFixed(2));

**"Area ="**

**"28.27"**

**"Area ="**

**"20.00"**

**"Area ="**

**"169.65"**

1. Import a module for filtering unique elements in an array.

let uniqueArray = [...new Set([5,5,2,4,2])];

console.log(uniqueArray);

**[5, 2, 4]**

1. Write a program to flatten a nested array to single level using arrow functions.

let arr = [[1, 2],[3, 4],[5, 6, 7, 8, 9],[10, 11, 12]];

let flattened = arr.reduce((acc, curVal) =>

{return acc.concat(curVal)}, []);

console.log(flattened);

**[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]**

1. Implement a singly linked list in es6 and implement addFirst() addLast(), length(), getFirst(), getLast(). (without using array)
2. Implement Map and Set using Es6?

var numbers = [4, 9, 16, 25];

console.log(numbers.map(Math.sqrt));

**[2, 3, 4, 5]**

let names = new Set(['A','B','C','D']);

console.log(names.size)

**4**

1. Implementation of stack (using linked list) ?

function LinkedList(){

this.head = null;

}

LinkedList.prototype.push = function(val){

var node = {

value: val,

next: null

}

if(!this.head){

this.head = node;

}

else{

current = this.head;

while(current.next){

current = current.next;

}

current.next = node;

}

}

let stack = [];

stack.push(5);

stack.push(10);

stack.push(-3837);

stack.push(74);

stack.pop();

console.log(stack);

**[5, 10, -3837]**