**Assignment - 2**

**Program-1:** Write a JavaScript function that uses arrow function syntax to take an array of numbers as input and return the sum of the squares of those numbers. Use the reduce() method to implement this function.

const doubleandSquareandSum = arr => arr.reduce((a, num) => a + ((2 \* num) \*\* 2), 0);

console.log(doubleandSquareandSum([1])) // 4

console.log(doubleandSquareandSum([1, 2])) // 20

console.log(doubleandSquareandSum([1, 2, 3])) // 56

console.log(doubleandSquareandSum([1, 2, 3, 4])) // 120

**Program-2:** Write a JavaScript class called Person that has two properties: name and age. Use the ES6 class syntax to define this class. Also, define a method called greet that logs a greeting message to the console using template literals.

class Person {

constructor(n, a) {

this.name = n;

this.age = a;

}

greet = function () {

console.log(this.name, this.age);

};

}

let e1 = new Person("amit",23)

e1.greet()

**Program-3:** Write a JavaScript function that uses the let keyword to declare a block-scoped variable called sum and initializes it to zero. The function should then use a forEach loop to iterate over an array of numbers and add each number to sum. Finally, the function should return sum. Use this function to calculate the sum of an array of numbers.

function h() {

const x = [1,2,35]

x.forEach(element => {

sum += element;

});

return sum;

}

console.log(h())

**Program-4:** Write a JavaScript function that uses destructuring assignment to extract the firstName and lastName properties from an object representing a person. The function should then use template literals to log a message to the console that greets the person using their first and last names.

let person = {

firstName: "Amit",

lastName: "Sharma",

};

// Destructure an Object

let {firstName, lastName} = person

console.log(`hello ${firstName} ${lastName} `)

**Program-5:** Write a JavaScript function that takes an array of objects representing books, where each object has properties title and author. The function should use the map() method to create a new array that contains only the titles of the books. Use arrow function syntax to define this function.

var books = [

{ title: 'Java', author : 'KKRose' },

{ title: 'Python', width: 'Rostum' },

{ title: 'ObjectiveC', width: 'Apple' },

];

let book = books.map((i) => {

return i.title;

});

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

console.log(book[i])

}

console.log(book)