**Practical 1**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body onload="prac1()">

    <script src="pr1.js"></script>

</body>

</html>

function addNum(n1 , n2){

    return n1 + n2;

}

function prac1(){

    let name = "Harsh Dudhat";

    let age = 19;

    let isRobot = false;

*//created by Harsh Dudhat 21CE026*

    console.log("Name : " + name);

    console.log("Age : " + age);

    console.log("Robot : " + isRobot);

    const num1 = parseFloat(prompt("Enter Number 1 : "));

    const num2 = parseFloat(prompt("Enter Number 2 : "));

    console.log(addNum(num1, num2));

}

**Practical 2**

let arr = [2, "Harsh Dudhat", 5.25, 6.58965, 9];

console.log("Length of the array:", arr.length);

console.log("Element at index 2:", arr[2]);

arr.push("Jyot");

*//created by Harsh Dudhat 21CE026*

console.log("After push new Array :", arr);

arr.pop();

console.log("After pop : ", arr);

arr.unshift(0);

console.log("After unshift : ", arr);

arr.shift();

console.log("After shift:", arr);

let joinedArray = arr.join(", ");

console.log("Joined array:", joinedArray);

delete arr[2];

console.log("After delete:", arr);

let newArray = arr.concat([6, 7, 8]);

console.log("Concatenated array:", newArray);

let flattenedArray = newArray.flat();

console.log("Flattened array:", flattenedArray);

let splicedArray = arr.splice(1, 8, 18, 11);

console.log("After splice:", arr);

let slicedArray = arr.slice(2, 7);

console.log("Sliced array:", slicedArray);

let person = {

  name: "Harsh Dudhat",

  age: 20,

  gender: "Male",

};

function displayPersonDetails(person) {

  console.log("Name:", person.name);

  console.log("Age:", person.age);

  console.log("Gender:", person.gender);

}

displayPersonDetails(person);

**Practical 3**

const PI = 3.14;

const addNumbers = (num1, num2) => num1 + num2;

const arr1 = [1, 2, 3];

const arr2 = [...arr1, 4, 5];

const obj1 = { name: "Harsh Dudhat", age: 19 };

const obj2 = { ...obj1, gender: "Male" };

const iterableArray = [80, 900, 500];

*//created by Harsh Dudhat 21CE026*

const sumNumbers = (...numbers) => {

  return numbers.reduce((acc, curr) => acc + curr, 0);

};

for (const element of iterableArray) {

  console.log(element);

}

const mapObj = new Map();

mapObj.set("name", "Harsh Dudhat");

mapObj.set("age", 19);

let variableLet = "Letter is defined :";

class Person {

  constructor(name, age) {

*this*.name = name;

*this*.age = age;

  }

  sayHello() {

    console.log(

      `Hello, my name is ${*this*.name}, and I am ${*this*.age} years old.`

    );

  }

}

const setObj = new Set([1, 2, 2, 3, 3, 4, 5]);

const Jyot = new Person("Harsh Dudhat", 19);

const fetchData = () => {

  return new Promise((resolve, reject) => {

    setTimeout(() => {

      resolve("Data is fetched!!");

    }, 2000);

  });

};

fetchData().then((data) => {

  console.log(data);

});

const symbolKey = Symbol("Unique");

const objWithSymbol = { [symbolKey]: "This is a symbol." };

const greetPerson = (name = "Guest") => {

  console.log(`Hello, ${name}!`);

};

  greetPerson("Harsh Dudhat");

  greetPerson();

  mapObj.forEach((value, key) => console.log(`${key}: ${value}`));

  console.log("Set:", setObj);

  Jyot.sayHello();

  console.log(variableLet);

  console.log("PI:", PI);

  console.log("Sum:", addNumbers(5, 7));

  console.log("arr2:", arr2);

  console.log("obj2:", obj2);

  objWithSymbol[symbolKey] = "Updated symbol key.";

  console.log("Sum of numbers:", sumNumbers(1, 2, 3, 4, 5));

*//created by Harsh Dudhat 21CE026*

**Practical 4**

let glb\_var = 0;

function Fact(number){

*//created by Harsh Dudhat 21CE026*

  function fact\_rec(n) {

    if(n==0)

    return 1;

    else

    return n \* fact\_rec(n-1);

  }

  let lcl\_var = fact\_rec(number);

  glb\_var = lcl\_var;

  return lcl\_var;

}

    console.log("Accessing global Var :", glb\_var);

*// console.log("Accessing local var : ", lcl\_var);*

    let num = 5;

    let result = Fact(num);

    console.log(`Factorial of ${num} is : `, result);