Name :- Sagar Popat Chaudhari  
Assignment

Que -> Demonstrate concepts

Ans ->

1. For Loop :

It is used to iterate a part of the program several times.  
Syntax –

for(initialization; condition; increment/decrement){

}

1. While loop :

The java while loop is used to iterate a part of the program repeatedly until the specified condition is true. The condition becomes false, loops automatically stops.

Syntax – while(condition){

increment/decrement

}

1. Continue :

It is used in loop control structure when you need to the next iteration of the loop immediately. It can be used with for loop or while loop.

Syntax –

for(initialization; condition; increment/decrement){

if(condition)

continue;

}

1. If :

It is used for test the condition.

Syntax –

if(condition){

}

1. Else :

It is used with If block, when if block condition is not satisfied then else block will executed.

Syntax –

if(condition){

………

}else{

……..

}

1. Switch :

It is used to execute one statement from multiple conditions.

Syntax –

switch(expression){

case 1 : …..

break;

case 2: ……

break;

default : …..

}

Recursion :

It is process in which a method call itself continuously. Factorial Number is best example of Recursion.

Binary Search Tree :-

It is node based binary tree Data Structure. Fastest searching technique based on divide and conquer method.

Que 🡪

Write and implementation of getElementById which performs the same basic task as that of actual getElementById.  
  
Ans ->

import {useRef, useEffect} from 'react';

export default function App() {

const ref = useRef(null);

useEffect(() => {

const el2 = ref.current;

console.log(el2);

const el = document.getElementById('container');

console.log(el);

}, []);

return (

<div>

<div ref={ref} id="container">

<h2>Hello</h2>

</div>

</div>

);

}

Que 🡪

Given a no x, find out if it is prime number or not, use javaScript and find out the difference between Next prime number after X and X.

Ans ->

<!DOCTYPE html>

<html lang="en">

<head>

<title>Que 3 next prime diff</title>

<body>

<script>

const num = parseInt(prompt("Enter a positive number: "));

const number = num;

const isPrime = (number) => {

let sqrtnum = Math.floor(Math.sqrt(number));

let prime = number !== 1;

for(let i = 2; i < sqrtnum + 1; i++){

if(number % i === 0){

prime = false;

break;

};

};

return prime;

}

const nextPrime = (number = 1) => {

while(!isPrime(++number)){

};

return number;

};

let diff = nextPrime(number)-(num);

if (num === 1) {

document.write("1 is neither prime nor composite number.");

}

else if (num > 1) {

for (let i = 2; i < num; i++) {

if (num % i == 0) {

isPrime = false;

break;

}

}

if (isPrime) {

document.write(`${num} is a prime number. `);

} else {

document.write(`${num} is a not prime number`);

}

}

else {

document.write("The number is not a prime number.");

}

document.write('<br><br><br> next prime number = ' +nextPrime(number));

document.write('<br><br> diffrence between both numbers = ' +diff );

</script>

</body>

</html>