JAVASCIPT

Internal Javascript

Index.html

```html
<html>
  <head>
    <!-- your LInks here!! -->
  </head>
  <body>
    <!-- your codes here!! -->
  </body>

  <script>
    alert("hello world");
  </script>
</html>
```

External Javascript

Index.html

```html
<html>
  <head>
    <!-- your LInks here!! -->
  </head>
  <body>
    <!-- your codes here!! -->
  </body>

  <script src="script.js"></script>
</html>
```

Script.js

```javascript
alert("hello world")
```

Javascript Output

```javascript
// Output methods
console.log(2+2);

alert(4+4);
```

Comments

```
// Single line comments
 a=10;
/*This page contains some examples of what
JavaScript can do.*/
console.log(a);
```

Variables

Script.js

Var Type

```
var a = 'hello';

console.log(a);

{
 var a = 20;
  console.log(a); //global Scope
}

console.log(a);
```

let Type

```
let a= 'hello';
console.log(a);

{
 let a = 20; //local scope
  console.log(a);
}

console.log(a);
```

Const

```
const a='dog';
console.log(a);

{
   const a='cat' //local scope similar to 'let'

    console.log(a);
```

```
}
console.log(a);
```

Arithmetic operator

Script.js

```javascript
var a, b;
a = 10;
b = 20;
//addition
console.log(a + b);
//subtraction
console.log(a - b);
//muliplication
console.log(a * b);
//division
console.log(a / b);
//modulus
console.log(a % b);
//addition
console.log(a + b);
```

Data types

Script.js

```javascript
// Numbers:
let  height = 170;
let weight = 7.5;

// Strings:
let color = "Yellow";


// Booleans
let x = true;
let y = false;

// Object:
const person = {firstName:"John", lastName:"Doe"};

// Array object:
const cars = ["Saab", "Volvo", "BMW"];

// Date object:
const date = new Date("2022-03-25");
```

Function Without Parameters

Script.js

```javascript
function dog(){
    let a=10;
    let b=15;
    let c=a+b;
     console.log(c);


}

dog();
```

Function with parameters

Script.js

```javascript
function cat(a, b) {
  let c = a + b;
  console.log(c);
}

cat("hello", "world");
```

Function with return type

Script.js

```javascript
function cat(a, b) {
  let c = a + b;
  return c;
}

var value = cat(20, 50);
console.log(value);
```

String Function

Script.js

```javascript
var text = "WELCOME TO JAVASCRIPT";

console.log(text.length);

console.log(text.slice(0, 5));

console.log(text.replace("JAVASCRIPT", "JS"));

console.log(text.toLowerCase()); //replace with  toUpperCase
```

Array

Script.js

```javascript
const num = [1, 2, 3, 4, 5];
// print Specific value
console.log(num[0]);
console.log(num[1]);

console.log("multiple value");

//display multiple value
for (let i = 0; i < num.length; i++) {
  console.log(num[i]);
}
```

Array

Script.js

```javascript
const num = [1, 2, 3, 4, 5];
// print Specific value
console.log(num[0]);
console.log(num[1]);
```

Array methods

Script.js

```javascript
var drink = ["water", "tea", "coffe", "milk"];

console.log(drink);

console.log(drink.toString());

document.write(drink.join("#"));

drink.pop();
console.log(drink.toString());

drink.push("fresh juice");
console.log(drink.toString());

var fruit = ["mango", "apple", "orange"];

var fresh = drink.concat(fruit);

console.log(fresh);

console.log(drink.sort());

console.log(drink.reverse());
```

Array Iteration

Script.js

```javascript
var num = [45, 56, 67, 78, 90, 12];
var n = num.length;

console.log("normal for loop");

for (let i = 0; i < n; i++) {
  console.log(num[i]);
}

console.log("foreach method");
num.forEach(function dog(onevalue) {
  console.log(onevalue);
```

```
});
```

If Else

Script.js

```javascript
let a,b;
a=10;
b=15;
if (a>b) {
  console.log("A is big");
} else {
  console.log("A is Small");
}
```

Nested if

Script.js

```javascript
let a,b;
a=10;
b=10;
if (a>b) {
  console.log("A is big");
}
else if(a==b){
  console.log("A and B are Equal");
}
 else {
  console.log("A is Small");
}
```

Switch

Script.js

```javascript
let n = 5;
switch (n) {
  case 1:
    console.log("The Value is one");
    break;

  case 2:
    console.log("The Value is two");
    break;
```

```
    default:
        console.log("Undefined value");
        break;
}
```

Object

Script.js

```javascript
const student = {
  rollno: 112,
  name: "john",
  deprt: "Ai & Ds",
  college: "GASC",
  mark: [50, 45, 48, 35, 30],
};

console.log(student.rollno);
console.log(student.name);
console.log(student.deprt);
console.log(student.college);

for (let i = 0; i < student.mark.length; i++) {
    console.log(student.mark[i]);
}
```

Object with For in

Script.js

```javascript
const person = {fname:"John", lname:"Doe", age:25};

for (var x in person) {

    console.log(person[x]);

}
```

For of

Script.js

```javascript
var mark = [50, 45, 48, 35, 30];

for (const x of mark) {
  console.log(x);
}
```

While Loop

Script.js

```javascript
let i = 0;
while (i < 10) {
  console.log(i);
  i++;
}
```

Arrow function

Script.js

```javascript
dog=()=>{
  console.log("This is arrow function");
};
dog();
```

Arrow function with return type

Script.js

```
cat=()=>{
 return "hello hai"
}

console.log(cat());
```

Single line arrow function

Script.js

```
cat=()=>"hello hai"


console.log(cat());
```

Class

Script.js

```
class student {
  add() {
    var a = 10;
    var b = 20;
    console.log(a + b);
  }
}

const stuobj = new student();

stuobj.add();
```