

# **JavaScript**

## **4.1.1 Javascript introduction :**

**Javascript is a scripting language**

**It is allow to create a dynamic webpages and content.**

**It is intract with html css .**

**Scripting is executed in web browser.**

**Javascript language is run in web browsers.**

**Html is content of webpage and css is layout of webpage and then Javascript is define a behavior of web pages.**

**If we can run javascript code so we need a javascript engine. And javascript engine is used to run code.**

## **4.1.2 use of javascript:**

**Web applications**

**Mobile applications**

**Games**

**Networking applications**

### **4.1.3 way to include javascript:**

#### **Inline script:**

**Javascript is include in html tag.**

#### **Internal script:**

**We can include javascript in html body in script tag.**

#### **External script:**

**We can use separate file and then include in html body**

**And add script tag and add file name.**

### **4.1.4 Basic syntax of javascript:**

**1.comment**

**2.variable and datatype**

**3.array**

**4.function**

**5.different type of loop**

**6.condition and operator**

**Hyphens are not allowed in javascript.**

**-> comment**

**1 single line comment**

```
// let numberOne = 1;  
// let numberTwo = 2;  
// let numberThree = 3;
```

**2 multi line comment**

```
/* let numberOne = 1;  
let numberTwo = 2;  
let numberThree = 3;*/
```

**->variable and datatype**

**let ,var , const**

**var :**

**->it is use in redeclaration.**

**-> it is a function scoped. not blocked scope**

**let:**

**-> it is a blocked scope**

**->it is not redeclaration**

**->it is not redefination**

**const:**

->it is not redeclare

->it is blockscope

<code>var a=10;</code>	<code>let a=10;</code>	<code>const a=10;</code>
<code>var a=20;</code>	<code>let a=50;</code>	<code>const a=20;</code>
<code>a=30;</code>	<code>a=20;</code>	<code>a=3;</code>

->Data type:

->number ->boolean ->string ->object ->>null

->undefined ->symbol

difference between null and undefined

null:it is in value insert but null.

undefined: it is in not value insert.

->operator and condition

-> arithmetic operator: + - \* / ++ -- \*\* %

->assignment operator : += -= \*= /=

->logical operator : && || !

->bitwise operator : & | ! ^

-> left shift and right shift : << >>

->ternary operator: () ? () : ()

**loose vs strong equality:**

**loose:**it is check only for value.

**strong:**it is check value and this datatype.

->loop:

->for loop

->while loop

-> do while loop:

**note:** do while loop must be execute 1 times.

->function:

it is used to reuse the code .

**normal function:**

```
// function define
function setMyName() {
    console.log('my name is parth')
}

// funnction call
setMyName()
```

## arrow function:

```
// arrow function

const squareOfTwoNum = (firstNum , secondNum) => {

    let ans = firstNum ** secondNum;

    return ans;

}

console.log(squareOfTwoNum(5,5));
```

### 4.1.5 Basic event of Javascript:

event is interaction between user and browser ui.

user click button user press key and user type of input field it's called event.

->many type of event

onchange

onclick

onmouseover

onmouseout

# onkeyboard

## 4.1.6 basic validation using if else :

```
// basic validation
if(username=="") {
    alert("username is required")
}
else if(email=="") {
    alert("email is required")
}
else if(password=="") {
    alert("password is required")
}
```

```
// basic validation in function
if(isValidNumber(userNumber)) {
    console.log("valid number")
}
else{
    alert("please enter valid number")
}
```

