```
// javascript is a programming language that is used mainly by frontend developers
// to add functionality in other for user to interact with a given software or web page

// machine language to human readable language
/**
*
* JavaScript is the world's most popular programming language.
* cross platform programming
* mobile _ react native
*
* webapp - frontend (angular, react, vue, next)
* Backend ( Mongodb, expressjs, nodejs)
*
* framework and libraries are special packages that we use to solve a specific task in programming language
*/

/**
*
* 1 true
* 0 false
*
*
*
* search.. look for something - 1000000011 ---> (search)
*
* CONTEXT OF WEB DEVELOPMENT
*
* Html: defines the content and structures of the web page
* CSS; defines layout, design and the beauty of the webpage
* JAVASCRIPT; defines the interaction or behaviour of the webpage
*
*
* john: man -- create a man using WEB DEVELOPMENT
*
* html to be John skeleton;
*
* CSS is the Flesh of the man
*
* javascript: defines the ability of the man to perform an action
*
* INTRODUCTION TO JAVASCRIPT
*
```

* this topics are tools we need to learn to conveniently create interaction in a webpage with javascript
*
* // variables (var, let, const)
*
* variables are containers with a particular type of content
* variables allow you to create a container, give the container a name and allow you to store just one particular type of content in the container
*
* // DECLARE A VARIABLE _ stores a particular data type
*
* Variables are Containers for Storing Data
*
JavaScript Variables can be declared in 4 ways:

Automatically

Using var

```
var Name = "John terry"
console.log(Name)
```

Using let

```
let Name = "Buhari";
console.log(Name);
```

Using const

```
const Name = 1428745613;
console.log(Name);
```

the differences btw the three

var allow you to redeclare and update a variable

let does not allow you to redeclare a variable but allows you to update the content of the variable
const does not allow you to either redeclare or update

```
const container = "John terry";

const contain = "buhari"
```

```
console.log(container);
// operators

INTRODUCTION TO OPERATORS
operators are the tools in javascript that we use to carry out operations

operations:
addition
division

There are different types of JavaScript operators:
=====================================================================
Arithmetic Operators:

JavaScript Arithmetic Operators
Arithmetic Operators are used to perform arithmetic on numbers

types of arithmetic operators:

Operator Description
+ Addition || concatenation
// concatenation is bring two non number data types together
// Concatenate, concatenation, or concat is a term that describes combining a
string, text, or other data in a series
let x = 5;
let y = 2;
let z = x + y;

- Subtraction
let x = 5
let y = 4
let sum = x - y
console.log(sum)


* Multiplication
let x = 5;
let y = 2;
let z = x * y;
** Exponentiation

let x = 5
let y = 10

let z = x ** y
```

```
Math.pow()


/ Division

let x = 5;
let y = 2;
let z = x / y;


% Modulus (Division Remainder)

let x = 5;
let y = 2;
let z = x % y;

the percentage sign is maths is not the same with javascript
returns the remainder




++ Increment
increases a value by 1
let x = 10
x++
x++
console.log(x)



-- Decrement
let x = 10
x--
console.log(x)

=====================================================================
Assignment Operators (=)
let Name = "john terry"

JavaScript Assignment
The Assignment Operator (=) assigns a value to a variable
example:
let x = 10;
// Assign the value 5 to x
```

```
let x = 5;
// Assign the value 2 to y
let y = 2;
// Assign the value x + y to z:
let z = x + y;
```

==========

Comparison Operators

String Operators

Logical Operators

Bitwise Operators

Ternary Operators

Type Operators

* arithmetics
* Assignment
* Data types
* Functions
* objects
* Events
* Strings

```
* Strings Methods
* String Search
* Strings Templates
* Numbers
* BigInt
* Numbers Methods
* Numbers Properties
* Arrays
* Array Methods
* Dates
* Maths
* Random
* Booleans
* comparison
* Conditionals ( if/ else, switch )
* Loops
* maps
* this keyword
* ARROW FUNCTIONS
* CLASSES
* MOULES
*
* ASYNC JAVASCRIPT
* DOM
*/


let x = 10
x--
console.log(x)
```