**Comenting code :**

// coment-in-line  
/\* multiline  
comment  
\*/

**Variables :**

vara ; // creates a variable a but doesnt assign value  
a = 7 ; // we can just assign a value because a is already declaredconsole.log( a ) ; // prints out variable a (just like print() in python)

var my\_name = “David“ ; // var means declaring a variable and assing string David  
let our\_name = “Team“ ; // let declares a local variable   
const pi = 3.14 ; //declares a constant

var a = 5 ;   
var b = 10.2 ;   
var c = “My name “;  
a = a +1; // output : 6  
b = b +5; // output : 15.2  
c = c + “ is David“; //output My name is David

**Basic Math :**

var sum = 10 + 10; //out : 20  
var substitution = 10 – 5 ; //out : 5  
var multiplication = 10 \* 5; //out : 50  
var divide = 10 / 5; //out: 2  
var exponent = 2\*\*3; //out: 8  
var modulus = 10 % 3 //out: 1

var sum += 10; //out:30 += is like var sum = sum + 10;   
sum++; //out: 31 like sum += 1  
sum--; //out: 30 like sum -= 1

**String :**

var my\_string =“This is \“quote\“inside string“;// the \ symbol is escape symbol  
var my\_string =´This is “quote“inside string´; // or just use the other quotes

**concatenation :**var conc = “Im “+ “good coder“; //output : Im good coder

**escape characters :**\´ single quote  
\“ double quote  
\\ backslash  
\n new line  
\r carriage return  
\t tab  
\b backspace  
\f form feed

**length of a string :**var name = “David“;  
var length = name.length; //out: 5 just like len() in python

**indexing :**var name = “David“;  
var letter = name[0]; //out: D

**Array :**

var my\_arr = [“Dave“, 18]; // creates an array (list)  
var nested\_arr = [ [18, 5] , [5, 25] ]; // creates a nested arrays in an array

**indexing :**var arr = [10, 20, 30, 40, 50];  
console.log(arr[2]); //out: 30

**modification :**var arr = [10, 20, 30, 40, 50];  
arr[2] = 100;  
console.log(arr) //out: 10, 20, 100, 40, 50

**add element at the end :**var arr = [10, 20, 30, 40, 50];  
arr.push(60);  
console.log(arr) //out: 10, 20, 30, 40, 50, 60

**add element at the front :**var arr = [10, 20, 30, 40, 50];  
arr.unshift(60);  
console.log(arr) //out: 60, 10, 20, 30, 40, 50

**remove last element :**var arr = [10, 20, 30, 40, 50];  
arr.pop(); //remove only the last element and return it  
console.log(arr) //out: 10, 20, 30, 40

**remove first element :**var arr = [10, 20, 30, 40, 50];  
arr.shift(); //remove only the first element and return it  
console.log( JSON.stringify(arr) ) //out: 20, 30, 40, 50   
 //JSON.stringify translates array to string

**Boolean:**

**values :**  
var a = true;  
var b = false;

**comparison :**==  
<  
>  
>=  
<=  
!=

**logic:**&& and  
|| or

**If statements :**

var time = 10;  
var greeting;  
if (time < 10) {  
  greeting = "Good morning";  
} else if (time < 20) {  
  greeting = "Good day";  
} else {  
  greeting = "Good evening";  
}  
console.log(greeting); //out: 20

**Switch-case :**

var a = 2;  
var ans;  
switch (a) {  
 case 1:  
 ans = ”one”;  
 break;  
 case 2:  
 ans = “two”;  
 break;  
 default: //if a is not defined in any case then do this  
 ans = “other”;  
 break;  
}  
console.log(ans) //out: two

**Functions :**

function my\_func(a, b) {  
 return a + b;  
}   
console.log( my\_func(5, 12) ); //out: 17

**Objects :**

var human = {  
 “name“ : “Dave“,  
 “age“ : 18  
} ; //can be used as dictionary / hashmap

**lookup value with key :**  
console.log( human.name ); //out: Dave  
console.log( human[“name“] ); //out: Dave

**change value with key :**  
human.name = “Luke“;  
console.log( human.name ); //out: Luke

**create new property :**human.height = 186**;**console.log( human.height ); //out: 186

**delete property :**delete human.age; //deletes property with key “age“

**check if object has property based on key :**if (human.hasOwnProperty(“name“) ) {  
 console.log(“has property“);  
} else {  
 console.log(“not found“);  
} //out: has property

**nested object in list etc. :**var database = [{  
 “name“ : “David“,  
 “age“ : 18  
}, {  
 “name“ : “Luke“,  
 “age“ : 17  
}];  
console.log( database[1].[“name“] ); //out: Luke

**While loop :**