# **PYTHON TO JAVASCRIPT!!! - PART 2**

Instruction

* You need to complete the **XXXXX** part with the JAVASCRIPT equivalent code
* You can work in team or by yourself –
  + Search on internet
  + or read the **1-Javascript Cheat Sheet.pdf**
  + <https://www.w3schools.com/js/default.asp>
* **IMPORTANT** : you need to test the code before writing it !!!

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|  | **PYTHON** | **JAVASCRIPT** |
| **BOOLEAN**  **OPERATORS** | **IS EQUAL, IS GREATER**  x = 5  y = 5  print (x == y)  >True  **AND / OR / NOT**  x = 5  y = 5  print (not (x == y and (x>5 or y<10)))  >false | IS EQUAL, IS GREATER  **XXXXXXXXXXXX**  let X = 5;  let Y = 5;  console.log(x===y)  AND / OR / NOT  **XXXXXXXXX**  let X = 5;  let Y = 5 ;  console.log (! (X===y && (x > 5 || y <10)) |
| **TYPES** | CONVERT A STRING TO INTEGER  **int**(<**STRING>)**  n = ‘5’  print (int(n) + int(n))  >10  CONVERT A INTEGER TO STRING  **str**(<**INTEGER>)**  n = 5  print (str(n) + str(n))  >55 | CONVERT A STRING TO INTEGER  **XXXXXXXXXXXXXXXXX**  let n = “5” ;  console.log(parseInt(n) + parseInt(n)) ;  CONVERT A INTEGER TO STRING  **XXXXXXXXXXXXXXXXX**  let n = 5;  console.log(n.toString() + n.toString()); |
| **FUNCTION** | DEFINE A FUNCTION  def sum (n1, n2):  total = n1 + n2  return total  print (sum (100,200)) -> 300 | DEFINE A FUNCTION  **XXXXXXXXXXXXXXXXXXX**  function sum (n1, n2) {  let total = n1 + n2;  return total;  }  console.log (sum (100, 200));  DEFINE AN ARRAY FUNCTION  **XXXXX**  function sum(array) {  let total = 0;  for (let i = 0; i < array.length; i++) {  total += array[i];  }  return total;  }  let numbers = [100, 200];  console.log(sum(numbers)); |
| **DATA**  **STRUCTURES** | **ARRAY**  # Create empty array  array = []  fruits = [“apple”, “banana”]  # Create array with values  array = [12, 13, 15, 16]  # Access using index  value = array [2]  # Insert value at index  array.insert(1, 20)  # Insert value at the end  array.append(20)  # Remove using index  array.pop(2)  # Get a sub array  subarray = array [2:25]  **ARRAY 2D**  # Create array2D with values  array2D = [ [12, 13, 15, 16], [4, 5, 6, 7]]  # Access using index  value = array2D[2][0]  **DICTIONARY**  # Create empty dictionary  dic = {}  # Create array with values  dic = { **key1**:**value1**, **key2**:**value2** … }  # Access using **key**  value = dic[**key1**]  # Add value for a new key  dic[**key3**] = **value3**  # Update value from existing key  dic[**key2**] = **value2New**  # Remove using key  dic. pop(**key2**) | **ARRAY**  # Create empty array  **XXXXXXXXXXXXXXX**  let array = []  let fruits = [“apple”, “banana”];  # Create array with values  **XXXXXXXXXXXX**  let array = [12,13,15,16];  # Access using index  **XXXXXXXXXXXXXXXXX**  let value = array [2];  # Insert value at index  **XXXXXXXXXXXXXXX**  array.splice (1,0,20);  # Insert value at the end  **XXXXX**  array.push(20);  # Remove using index  **XXXXX**  array.splice(2,1);  # Get a sub array  **XXXXX**  let subarray = array. splice (2, 25)  **ARRAY 2D**  # Create array2D with values  **XXXXX**  let array2D = [  [12,13,15,16],  [4,5,6,7]  ];  # Access using index  **XXXXX**  let value = array2D [2][0];  **OBJECT**  # Create empty object  **XXXXX**  let dic = {};  # Create array with values  **XXXXX**  let dic = {  key1: value1,  key2:value2  // …  };  # Access using **key**  **XXXXX**  let value = dic [key1];  # Add value for a new key  **XXXXX**  let dic [key3] =value3;  # Update value from existing key  **XXXXX**  let dic [key2] = value2New;  # Remove using key  **XXXXX**  delete dic [key2]; |
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**Q2 The 3 ways to declare a variable in JS**

var a = 4

Let a = 4

const a = 4

* Can you explain what the differences?
* Var = is the keyword was use traditionally to variable in JavaScript before introduced let and const.
* Lat = is the keyword that allow to use introduced in ECMAScript 6 and province block-scoping for variable.
* Const = is the keyword also introduced in ES6 and use to declare constants.