# **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) ))  >True | IS EQUAL, IS GREATER  **let y = 5;**  **let x = 5;**  **console.log(x === y);**  AND / OR / NOT  **let x = 5; let y = 5; if (!( x == y && ( x > 5 || y < 10 ))); console.log("True");** |
| **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  **let n = "5"; console.log(parseInt(n)+parseInt(n));**  CONVERT A INTEGER TO STRING  **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  **function sum( n1, n2){**  **result = n1 + n2;**  **return result**  **}**  **console.log(sum(100, 200));** |
| **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  **let array = [];**  # Create array with values  **let array = [12,13,15,16];**  # Access using index  **let array = [];**  **console.log(array[2];**  # Insert value at index  **let array = [12,13,15,16];**  **array.slice(1, 0, 20);**  **console.log(array)**  # Insert value at the end  **let array = [12,13,15,16];**  **array.push(20);**  **console.log(array)**  # Remove using index  **let array = [12,13,15,16];**  **array.pop(1);**  **console.log(array)**  # Get a sub array  **let array = [12,13,15,16];**  **console.log(array.slice(1,25);**  **ARRAY 2D**  # Create array2D with values  **let array = [[1, 2, 3], [4, 5, 6]];**  # Access using index  **let array = [[1, 2, 3], [4, 5, 6]];**  **console.log(array[1][2]);**  **DICTIONARY**  # Create empty dictionary  **let dic = {}**  # Create array with values  **let dic = {"Name": "Lyden", "Age" : 20};**  # Access using **key**  **let dic = {"Name": "Lyden", "Age" : 20}; console.log(dic["Age"]);**  # Add value for a new key  **let dic = {"Name": "Lyden", "Age" : 20};**  **dic["Job"] = "student";**  **console.log(dic);**  # Update value from existing key  **let dic = {"Name": "Lyden", "Age" : 20, "Place" : "Phnom Penh"};**  **dic["Place"] = "Phnom Penh";**  **console.log(dic);**  # Remove using key  **let dic = {"Name": "Lyden", "Age" : 20, "Place" : "Phnom Penh"};**  **delete(dic["Place"]);**  **console.log(dic);** |

**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?

ANSWER:

Var is the global variable.

Let is the local variable.

Const is the variable that you cannot change the value.