# **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 x = 5;  let y = 5;  console.log('hello')  AND / OR / NOT  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  let x = '5';  let y = '5';  console.log(parseInt(x) + parseInt(y))  CONVERT A INTEGER TO STRING  let x = 5;  let y = 5;  console.log(x.toString() + y.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){      let result = (n1 + n2);  return result;  }sum(100,500); |
| **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 dictionary 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 = [12, 13, 15, 16];  console.log(array[2]);  # Insert value at index  let array = [12, 13, 15, 16];  array.splice(1,0, 50);  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 = [1,2,3,4,5];  array.splice(1,1);  console.log(array);  # Get a sub array  let array = [12, 13, 15, 16];  console.log(array.slice(1,3));  **ARRAY 2D**  # Create array2D with values  let array2D = [ [12, 13, 15], [4, 5, 6, 7]];  # Access using index  let array2D = [ [12, 13, 15], [4, 5, 6, 7]];  console.log(array2D[1][0])  **DICTIONARY**  # Create empty dictionary  let dic = {}  # Create array with values  let dic = {'hello':14,'rice':12,'fruit':15}  # Access using **key**  let dic = {'hello':14,'rice':12,'fruit':15}  console.log(dic['hello']);  # Add value for a new key  et dic = {'hello':14,'rice':12,'fruit':15}  dic['chanthy'] = 'good job'  console.log(dic)  # Update value from existing key  let dic = {'ronan':14,'rice':12,'fruit':15}  dic['ronan'] = 'The best team yes!'  console.log(dic)  # Remove using key  let dic = {'ronan':14,'rice':12,'fruit':15};  delete dic['ronan'] ;  console.log(dic); |

**Q2 The 3 ways to declare a variable in JS**

var a = 4

Let a = 4

const a = 4

**Let** are **local**variables can only be accessed from inside the function where they are declared.

**var** is function scoped that we can accessed from inside the function and change the value.

**Const** is variables, except they cannot be reassigned.