# **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  x=5  y=5  console.log(x==y);  AND / OR / NOT  x=5  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 n='5';  console.log(parseInt(n)+parseInt(n));  CONVERT A INTEGER TO STRING  let n='5'  console.log(n+n); |
| **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){      total=n1+n2;      return total;  }  console.log(sum(100,200))>300; |
| **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 = []  let fruits = ["apple", "banana"]  array=fruits  console.log(array);  # Create array with values  let array = [12, 13, 15, 16]  for (let number of array){      console.log(number);  }  # Access using index  let array = [12, 13, 15, 16]  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 = [1, 2, 3, 4, 5];  let value = 20;  array.push(value);  console.log(array  # Remove using index  let array = [12, 13, 15, 16]  var index = 2;  array.splice(index, 1);  console.log(array);  # Get a sub array  array2D = [ [12, 13, 15, 16], [4, 5, 6, 7]]  for (let arr of array2D){      console.log(arr);  }  **ARRAY 2D**  # Create array2D with values  let array2D = [ [12, 13, 15, 16], [4, 5, 6, 7]]  console.log(array2D);  # Access using index  let array2D = [ [12, 13, 15, 16], [4, 5, 6, 7]]  var element = array2D[1][0];  console.log(element);  **OBJECT**  # Create empty object  let dic={};  console.log(dic);  # Create array with values  let dic={}  dic.id="008";  dic.Name="Pheaktra";  dic.age=18;  console.log(dic);  # Access using **key**  let dic={      key1:"008",      key2:"Pheaktra",      key3:"18"  };  value='key1';  console.log(dic[value]);  # Add value for a new key  let dic={      key1:"008",      key2:"Pheaktra",      key3:"18"  };  dic.key4='Cambodia';  console.log(dic);  # Update value from existing key  let dic={      key1:"008",      key2:"Pheaktra",      key3:"18"  };  dic['key2']='Soo';  console.log(dic);  # Remove using key  let dic={      key1:"008",      key2:"Pheaktra",      key3:"18"  };  delete dic['key2'];  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?