**Practice Questions**

1. Create a dictionary such that keys are [1, 2, 2, 3] and corresponding values are [“Class-V”, “Class-VI”, “Class-VII”, “Class-VIII”].
2. Initialize a dictionary with {"bob" : 2, "Alice" : 1, "Cathy" : 3, "Dustin" : 5, "Eve" : 4}. Sort the dictionary by values. **Hint**: Make use of the parameters of *Sorted* function.
3. Initialize two dictionaries with {“key1” : 1, “key2” : 3, “key3” : 2} and {“key1” : 1, “key2” : 2}. Find the key-value pairs which is common on both the dictionaries.
4. Create a dictionary using a string “python” such that each character in the string is a key and the length of the string is the value associated with each key.
5. Create a dictionary using a string “python” such that each character in the string is a key and the index of the character is the value associated with the key.
6. Write a function named *key\_exists* to check whether a key already exists in a dictionary which takes in a key and returns a Boolean. Do the first question again including the condition check.
7. Create a function *fibonacci(N)* to display Fibonacci sequence of 0 to N elements using recursion. Print *fibonacci(10).*
8. Create a function *sum\_n(N)* to find the sum of N Natural numbers using recursion. Print *sum\_n(35).*
9. Create a function *factorial(N)* to find the factorial of N using recursion. Print *factorial(10)*.
10. Initialize a list with [1, 'a', 0, False, True, None, '0']. Modify the list such that there is no nulls or NAs in the list.

**NOTE TO ETGs:** Please provide the solutions in a Jupyter Notebook HTML file. After practicing all the questions in the Jupyter Notebook:

File 🡪 Download as 🡪 HTML(.html)

Put the name of the HTML file as “Solutions\_Day\_**N**\_**NAME**”. So for today, **N** = 2.