

## Python & Leetcode:

A **dictionary** in Python is a map that contains an index for every value.

`enumerate(nums)`: This function is used to iterate over a sequence (in this case, the `nums` list) and return both the index (`i`) and the corresponding value (`n`). It allows you to loop through both the indices and values of the elements in the list simultaneously.

- `map[n] = i`: This assigns the index (`i`) as the value in the dictionary `map` using the key as the element value (`n`).
- `map[i] = n`: This would assign the value of the current element (`n`) as the value in the dictionary `map` using the key as the index (`i`). In the context of this code, it doesn't make sense to use `map[i] = n` because the goal is to track duplicates based on the values of the elements, not their indices.

### Set:

1. `hash_set = set()`: This initializes an empty set named `hash_set`. Unlike a list or dictionary, a set only stores unique elements, making it suitable for checking duplicates.
2. `for i in nums:`: This loop iterates over the elements of the `nums` list.
3. `if i in hash_set:`: This checks if the current element `i` is already in the set. If it is, a duplicate is found, and the function returns `True`.