O(1) Notation

What is Time complexity ?

Time complexity in computer science measures how the running time of an algorithm or a specific task within an algorithm increases as the input data gets larger. It allows us to compare and assess the efficiency of different algorithms as the input size grows.

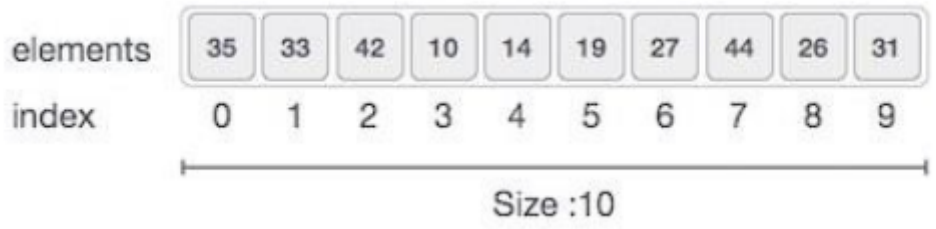
What is O(1) notation ?

"O(1)" time complexity is typically associated with simple and straightforward operations, like basic arithmetic operations, array element access etc.

examples of O(1) operations

1. Turning On/Off Lights: Switching on or off a light using a simple wall switch is generally an O(1) operation. It doesn't matter how many lights or switches you have; the time it takes to flip the switch remains constant.
2. Using a Microwave: Setting the microwave to heat food for a specified amount of time is usually an O(1) operation. The microwave will run for the set time, regardless of the quantity of food inside.

Accessing Elements from an Array



- Index starts with 0.
- Array length is 10, which means it can store 10 elements.
- Each element can be accessed via its index. For example, we can fetch an element at index 3 as 10 in O(1).