**Understanding Arrays**

**1)How Arrays are Represented in Memory:**

* It uses contiguous memory allocation, where the data is placed in consequent memory locations.
* The elements can be accessed via indexing.

**4)Analysis**

Time complexity of each operation:

Add:

O(1) for adding employee

Search:

O(n)- In worst case scenario

Traverse:

O(n)- As we need to visit all n elements.

Delete:

O(n): In worst case, where n elements are shifted after deleting

**Limitations of Arrays:**

1.Size of an array is fixed

2.Inefficient deletions/insertions as it needs more than one element to shift

3.Memory contiguity: As it requires contiguous memory locations, incase of large arrays it may not be possible to allocate memory.