1. Arrays are a fundamental data structure that store a collection of elements of the same data type.Arrays are a block of continuous memory allocations which store collections of elements.The advantages of arrays include:

**Constant-time access**: Given an index, you can access the corresponding element in O(1) time.

**Efficient memory usage**: Arrays use memory efficiently because they store elements of the same size in contiguous locations.

**Fast Access**: Accessing an element by index is very fast (O(1)), making arrays suitable for applications where frequent read operations are required.

a) Add employee :- O(1)

Search Employee :- O(n)

Traverse Employee :- O(n)

Delete Employee :- O(n)

b) Limitations of Arrays :-

* Fixed Size :-Arrays have fixed size defined at the time of creation,which makes Arrays inflexible.We will need to resize and copy elements if the array becomes full.
* Inefficient additions and deletions :- Adding or removing elements requires shifting of elements which will increase time complexity O(n).

* No Dynamic expansion :- Arrays do not automatically resize as linked list and arrayList do.