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| **ARRAY** | **LINKED LIST** |
| Array is a collection of elements of similar data type. | Linked List is an ordered collection of elements of same type, which are connected to each other using pointers. |
| Array supports **Random Access**, which means elements can be accessed directly using their index, like arr[0] for 1st element, arr[6] for 7th element etc.  Hence, accessing elements in an array is **fast** with a constant time complexity of O(1). | Linked List supports **Sequential Access**, which means to access any element/node in a linked list, we have to sequentially traverse the complete linked list, upto that element.  To access **nth** element of a linked list, time complexity is O(n). |
| In an array, elements are stored in **contiguous memory location** or consecutive manner in the memory. | In a linked list, new elements can be stored anywhere in the memory.  Address of the memory location allocated to the new element is stored in the previous node of linked list, hence formaing a link between the two nodes/elements. |
| In array, **Insertion and Deletion** operation takes more time, as the memory locations are consecutive and fixed. | In case of linked list, a new element is stored at the first free and available memory location, with only a single overhead step of storing the address of memory location in the previous node of linked list.  Insertion and Deletion operations are **fast** in linked list. |
| Memory is allocated as soon as the array is declared, at **compile time**. It's also known as **Static Memory Allocation**. | Memory is allocated at **runtime**, as and when a new node is added. It's also known as **Dynamic Memory Allocation**. |
| In array, each element is independent and can be accessed using it's index value. | In case of a linked list, each node/element points to the next, previous, or maybe both nodes. |
| Array can **single dimensional**, **two dimensional** or **multidimensional** | Linked list can be **Linear(Singly)**, **Doubly** or **Circular** linked list. |
| Size of the array must be specified at time of array decalaration. | Size of a Linked list is variable. It grows at runtime, as more nodes are added to it. |
| Array gets memory allocated in the **Stack** section. | Whereas, linked list gets memory allocated in **Heap** section. |