

### **1. What is a linked list?**

Linked list is a dynamic structure. It stores the elements in a un continuous memory location unlike arrays. It has both data and pointer data stores the element and pointer stores the memory location of the next variable. Linked list is used where insertion and deletions are frequently used.

### **2. What are the different forms of the linked list?**

1. singly linked list
2. Doubly linked list
3. Circular linked list
4. Circular Doubly linked list

### **3. What is a linked lists purpose?**

Linked list stores the elements in a random memory location to reduce the complexity of insertions and deletions. In array insertion takes more time to change every element position and vice versa for deletion also. Whereas in linked list insertion happen by changing the pointer value in the previous node. So, it takes less time to insert or delete elements than arrays. No memory wastages happen in a linked list

Linked list is more often used where insertion and deletions operations occur more frequently.

### **4. What are the advantages of linked list over the array?**

1. Easy to insert and easy to delete
2. No memory wastage
4. Easy to operate

### **5. What is a purpose of a circular linked list?**

In a circular linked list, we can reach to any node from any node because the tail node is pointing towards the head node. It is used where we want to loop through the entire list irrespective of the node. Undo functionality uses circular linked list to go back the previous operations.

## **6. How will you explain circular linked list?**

The only difference between singly linked list and circular linked list is, in circular linked list the tail node is pointing towards the head node. In circular linked list every element has linked to its next element. We can access the head node easily from the tail node unlike singly linked list.