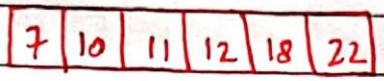
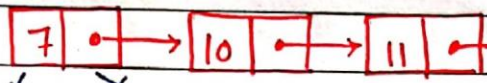
URBAN EDGE

Introduction to Linked Lists

Linked lists are similar to arrays (Linear data structures)



⇒ In Arrays elements are stored in contiguous memory locations



⇒ In linked lists, elements are stored in non contiguous memory locations

sequence of nodes, where each node contains data and a reference (or link) to the next node in the sequence.

Why Linked Lists?

Memory and the capacity of an array remains fixed.
In case of linked lists, we can keep adding and removing elements without any capacity constraints

Drawbacks of Linked lists

→ Extra memory space for pointers is required (for every node 1 pointer is needed)
→ Random access not allowed as elements are not stored in contiguous memory locations.

Implementation

Linked list can be implemented using a structure in C language

```
Struct Node {
    int data;
    Struct Node * next;
};
```

⇒ Self refencing Structure