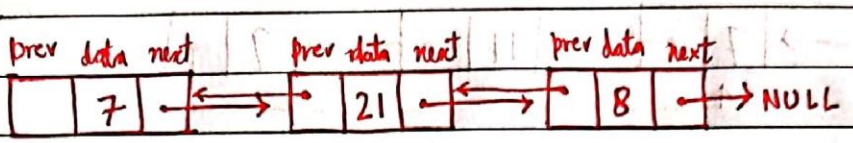
URBAN EDGE

Doubly Linked List

In a doubly linked list, each node contains a data part along with the two addresses, one for the previous node and the other one for the next node



Implementation

A doubly linked list can be implemented in C language as follows:

```
struct Node {
    int data;
    struct Node * next;
    struct Node * prev;
};
```

Operations on a Doubly Linked List

The insertion and deletion on a Doubly linked list can be performed by rewiring pointer connections just like we saw in a Singly linked list.

The difference here lies in the fact that we need to adjust two pointers (prev & next) instead of one (next) in the case of a Doubly linked list.

Two way tarversal

insertion and deletion at known index is o(1)