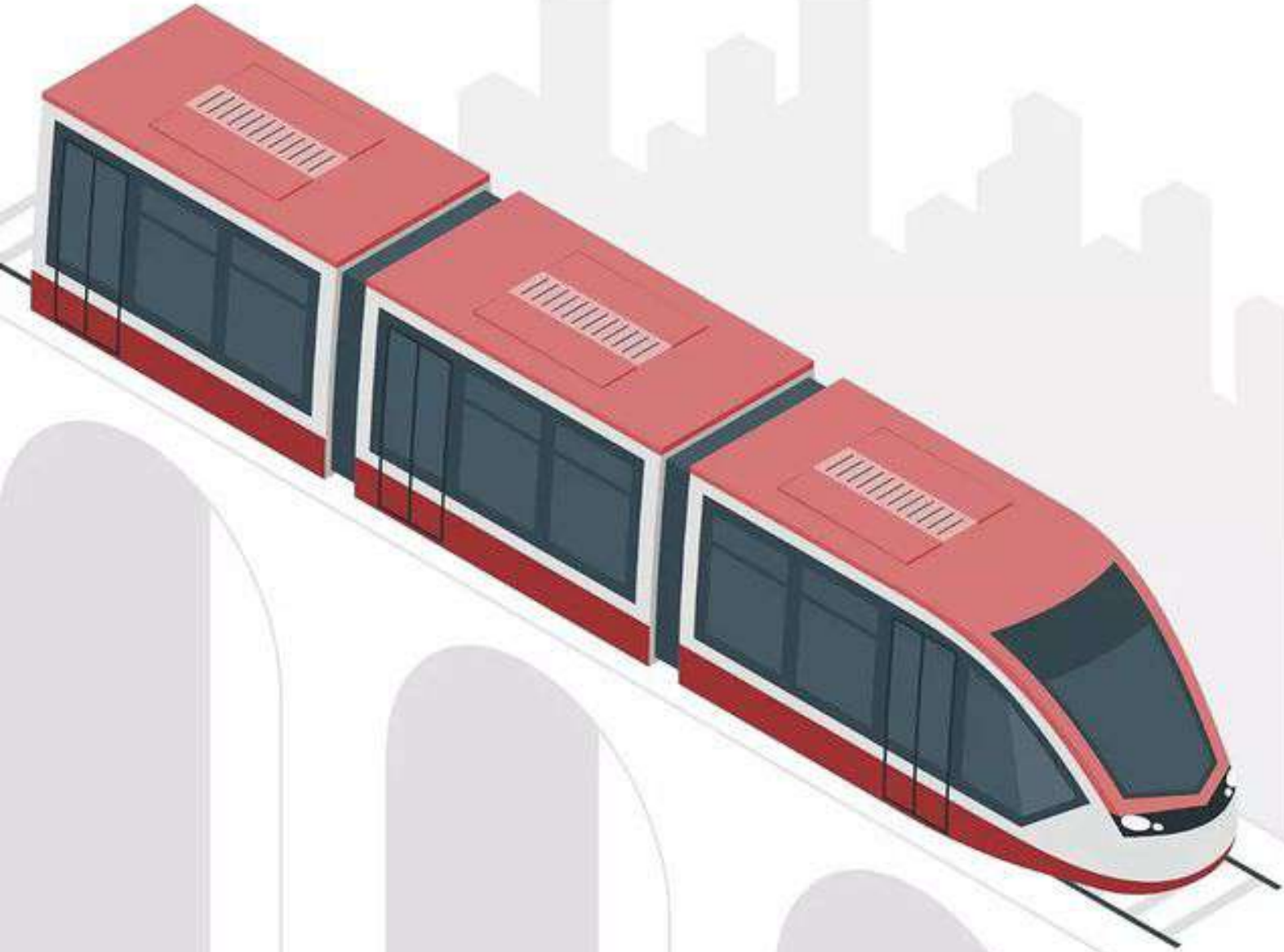
01

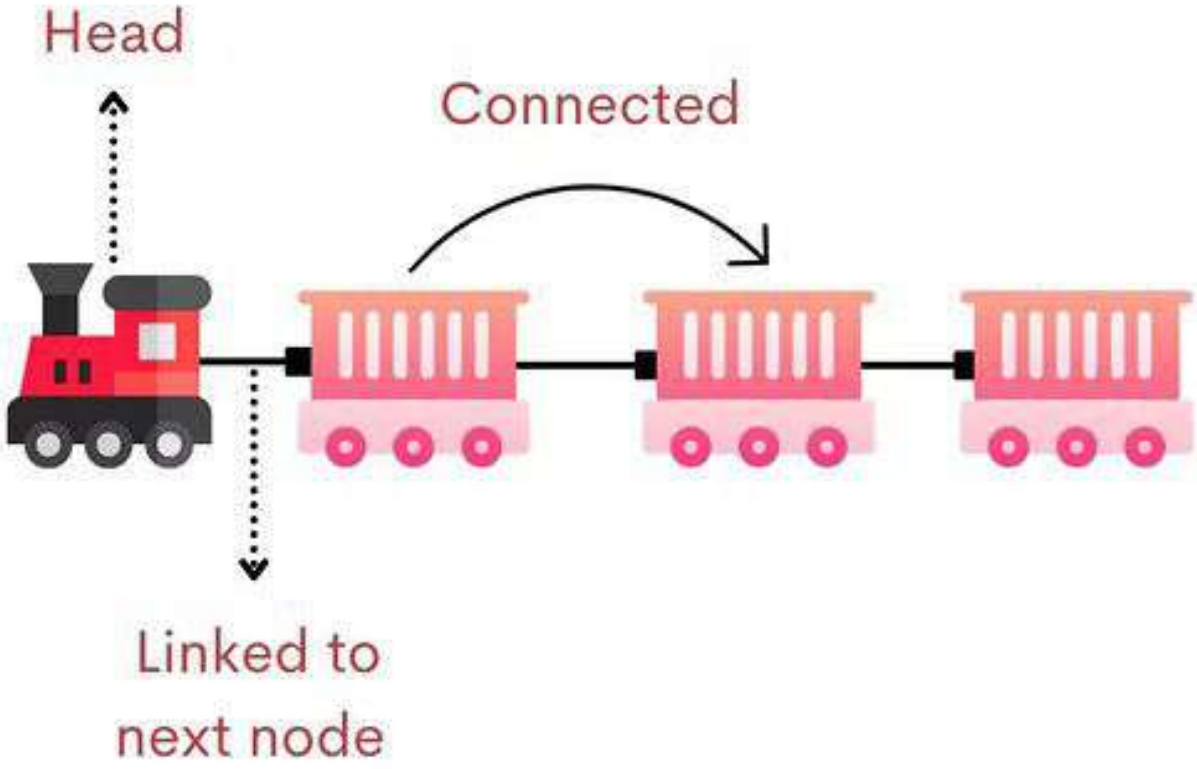
LINKED-LIST

(With Real World Example)

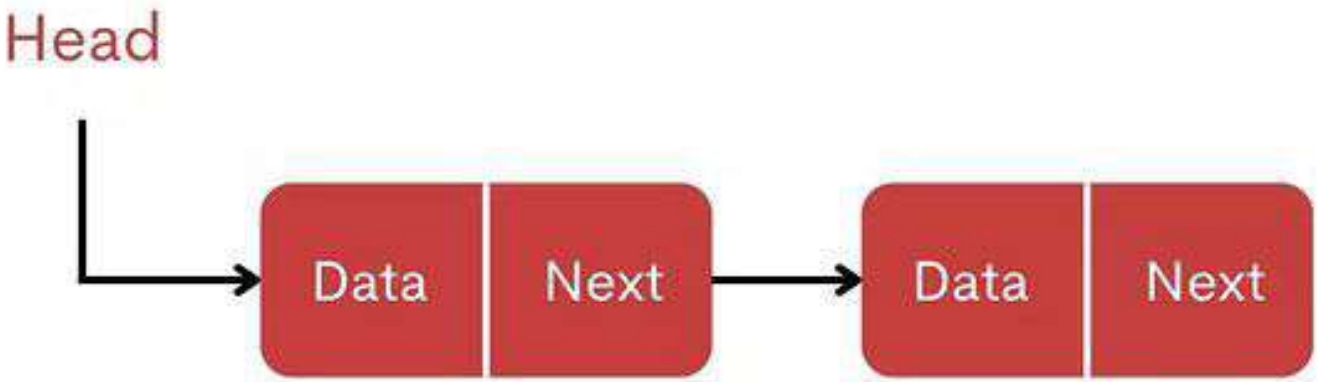
The train is the best example of a linked list



where each compartment is
connected to its next compartment

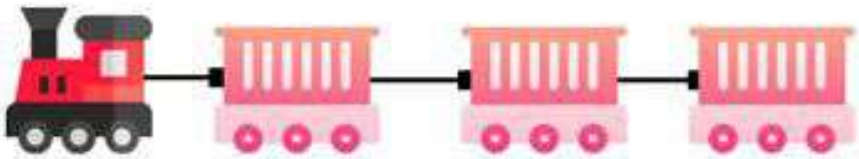


Same as in the linked list each node is connected to its next node using a pointer



LINKED-LIST

TYPES OF LINKED-LIST



Singly Linked List

Doubly Linked List

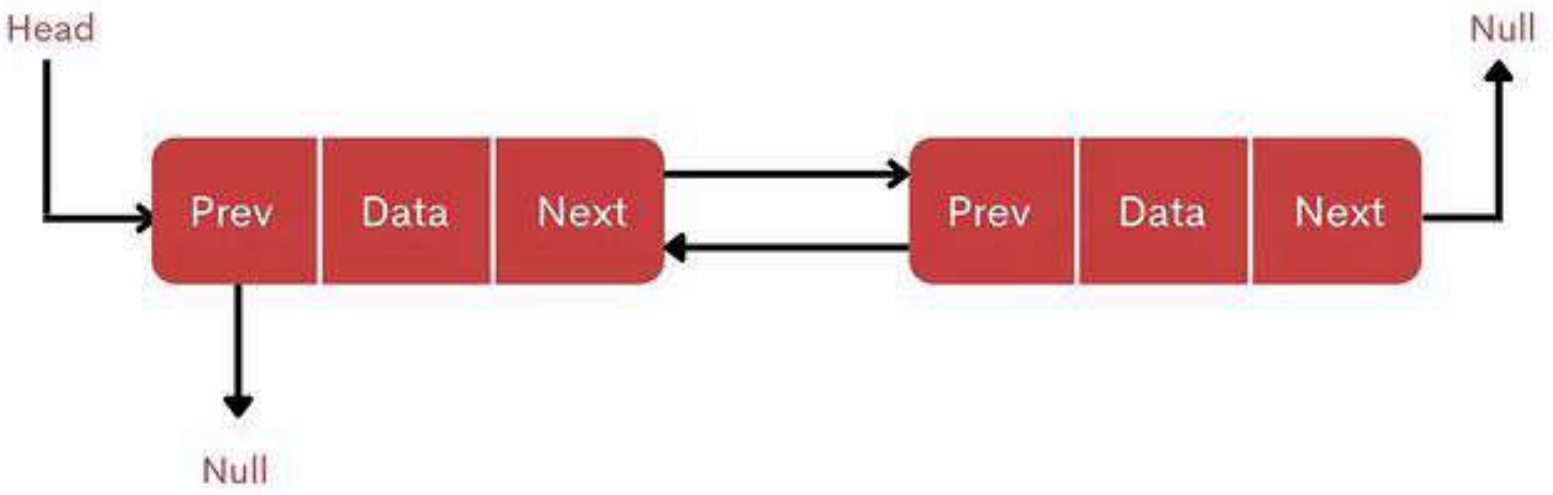
Circular Linked List

Singly Linked List

In a singly Linked List, Each node has data and a pointer to the next node

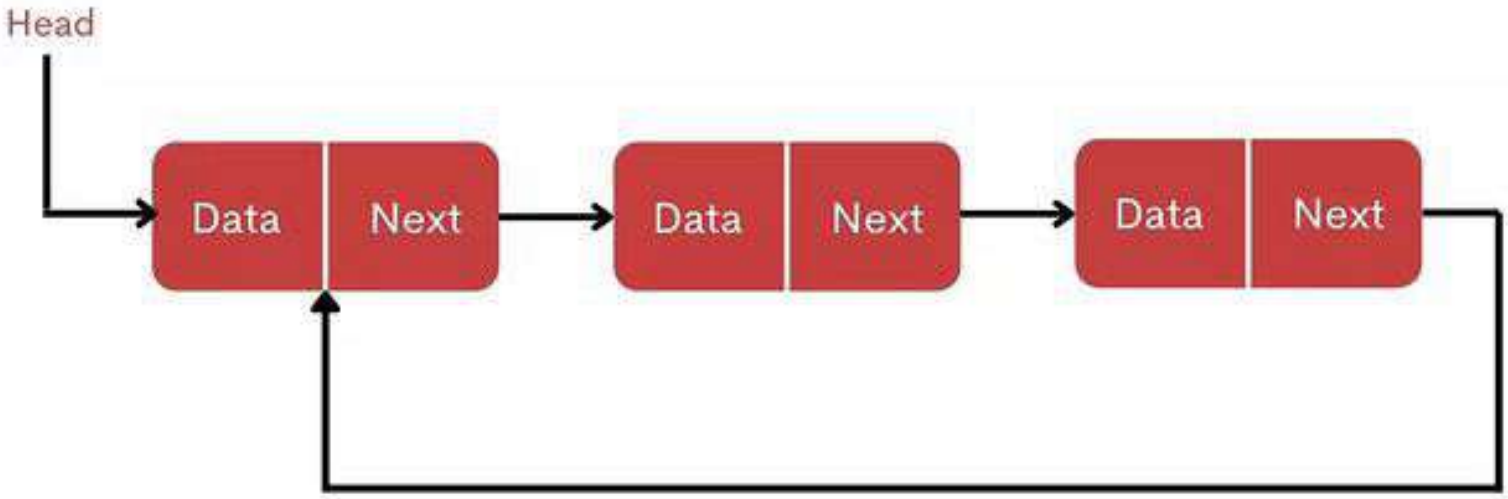
Doubly Linked List

We add a pointer to the previous node in a doubly-linked list so we can go in either directions forward and backward



Circular Linked List

In Circular Linked List last element is connected to first element




```c
#--Code representation Singly Linked List--#

struct node {
    int data;
    struct node *next;
}
```

```c
#--Code representation Doubly Linked List--#

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