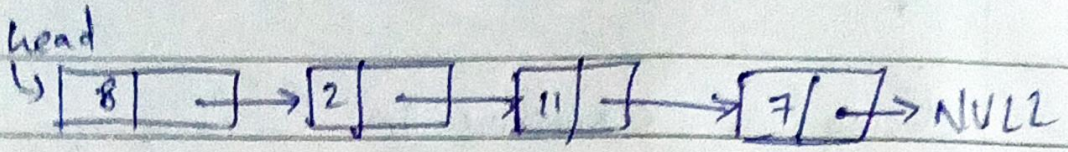
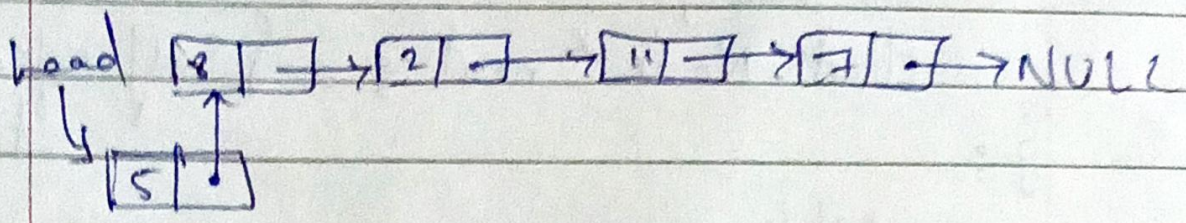
Insertion in a linked list.



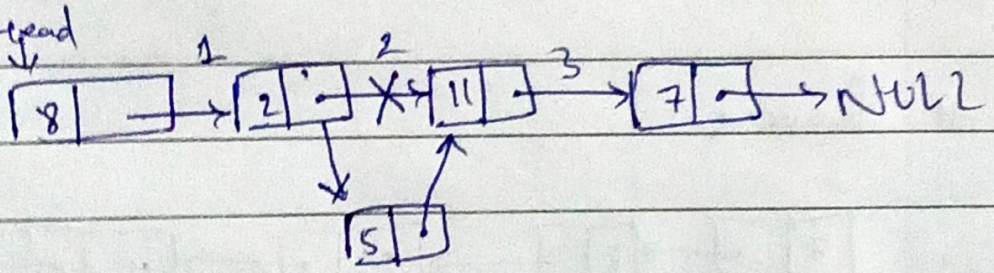
→ Case 1 :- Insert at the beginning



Time complexity = O(1)

```
struct Node * ptr = (struct Node*) malloc(sizeof(struct Node));
ptr->next = head;
head = ptr;
return next;
```

→ Case 2 :- Insert in between

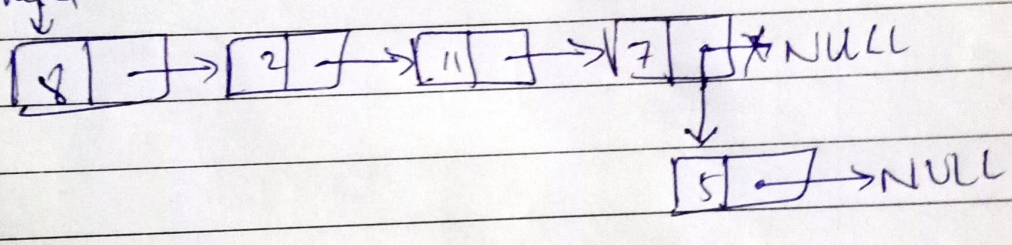


struct Node *ptr = (struct Node*) malloc (sizeof(struct Node));

ptr → next = p → next ;
p → next = ptr ;

Time Complexity O(n).

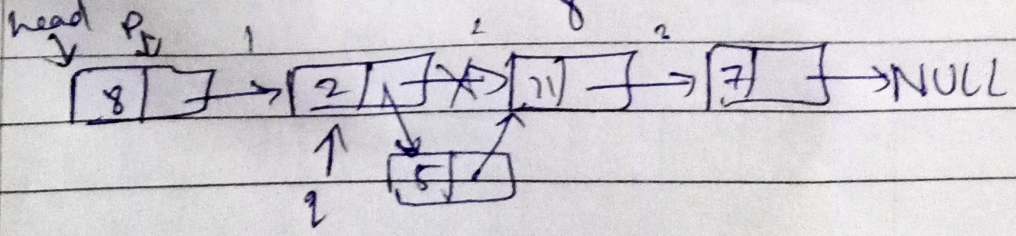
→ Case 3 :- Insert at end.



p → next = ptr ;
ptr → next = NULL ;

Time Complexity O(n)

→ Case 4 :- Insert After a node.



ptr → next = q → next ;
q → next = ptr ;
Time Complexity O(1)