

Doubly Linked List

Insert At Empty , At Begin and At End

```
#at empty atbegin and at end
class Node:
    def __init__(self,data):
        self.data=data
        self.next=None
        self.prev=None
class doublyLL:
    def __init__(self):
        self.head=None
    def print_LL(self):
        if self.head is None:
            print("Linked list is empty!")
        else:
            n=self.head
            while n is not None:
                print(n.data,"-->",end=" ")
                n=n.next
```

```
def insert_empty(self,data):  
    if self.head is None:  
        new_node=Node(data)  
        self.head=new_node  
    else:  
        print("Linked list is not empty")
```

```
def add_end(self,data):  
    new_node=Node(data)  
    if self.head is None:  
        self.next=new_node  
    else:  
        n=self.head  
        while n.next is not None:  
            n=n.next  
        n.next=new_node  
        new_node.prev=n
```

```
dll=doublyLL()  
dll.insert_empty(10)  
dll.add_begin(20)  
dll.print_LL()  
dll.print_LL_reverse()
```