Linked list

class Node:

def \_\_init\_\_(self,data):

self.data=data

self.next=None

class LinkedList:

def \_\_init\_\_(self):

self.head = None

def is\_empty(self):

return self .head is None

def append(self,data):

new\_node= Node(data)

if self.head is None:

self.head = new\_node

return

current=self.head

while current.next:

current=current.next

current.next = new\_node

def prepend(self,data):

new\_node= Node(data)

new\_node.next= self.head

self.head= new\_node

def delete(self,data):

if self.head is None:

return

if self.head== data:

self.head= self.head.next

return

current = self.head

while current.next:

if current.next.data == data:

current.next= current.next.next

return

current=current.next

def search(self,data):

current= self.head

while current:

if current.data==data:

return True

current=current.next

return False

def display(self):

current= self.head

while current:

print(current.data, end = " ->")

current = current.next

print("None")

l=LinkedList()

l.append(1)

l.append(2)

l.append(3)

print("Linked list : ")

l.display()

l.prepend(0)

l.prepend(-1)

print("Linked list after prepend: ")

l.display()

l.delete(0)

l.delete(3)

print("Linked list after deletion : ")

l.display()

print("Search for 1 : ", l.search(1))

print("Search for 5 : " ,l.search(5))

Output:

Linked list :

1 ->2 ->3 ->None

Linked list after prepend:

-1 ->0 ->1 ->2 ->3 ->None

Linked list after deletion :

-1 ->1 ->2 ->None

Search for 1 : True

Search for 5 : False