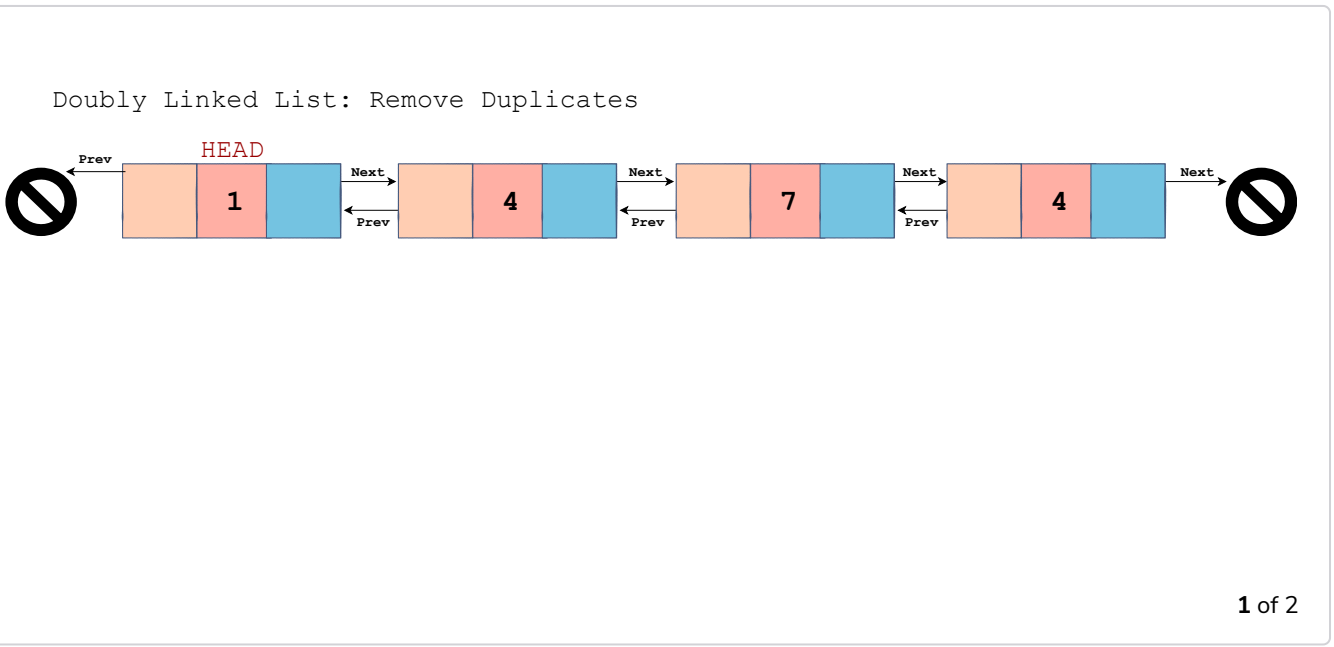
Exercise: Remove Duplicates

Challenge yourself with an exercise in which you'll have to remove duplicates from a doubly linked list.

We'll cover the following

Problem

In this exercise, you are required to remove the duplicates from a doubly linked list.



In the exercise widget, the `delete_node` method has been given to you. It is a slight modification of the `delete` method we covered in one of the previous lessons. You have to figure out the modification yourself. The hint is to recall the `remove_duplicates` lesson from one of the previous chapters.

Coding Time!

In the code below, the `remove_duplicates` is a class method of the `DoublyLinkedList` class. You cannot see the rest of the code as it is hidden. As `remove_duplicates` is a class method, please make sure that you don't change the indentation of the code provided to you. You are required to write your solution under the method prototype.

For this exercise, you are not required to return anything. Just remove the duplicates from the linked list using the `delete_node` method.

Good luck!

```
def remove_duplicates(self):
  pass

def delete_node(self, node):
  cur = self.head
  while cur:
    if cur == node and cur == self.head:
      # Case 1:
      if not cur.next:
        cur = None
        self.head = None
        return

      # Case 2:
      else:
        nxt = cur.next
        cur.next = None
        nxt.prev = None
        cur = None
        self.head = nxt
        return

    elif cur == node:
      # Case 3:
      if cur.next:
        nxt = cur.next
        prev = cur.prev
        prev.next = nxt
        nxt.prev = prev
        cur.next = None
        cur.prev = None
        cur = None
        return

      # Case 4:
      else:
        prev = cur.prev
        prev.next = None
        cur.prev = None
        cur = None
        return
```

```
    cur = cur.next
```