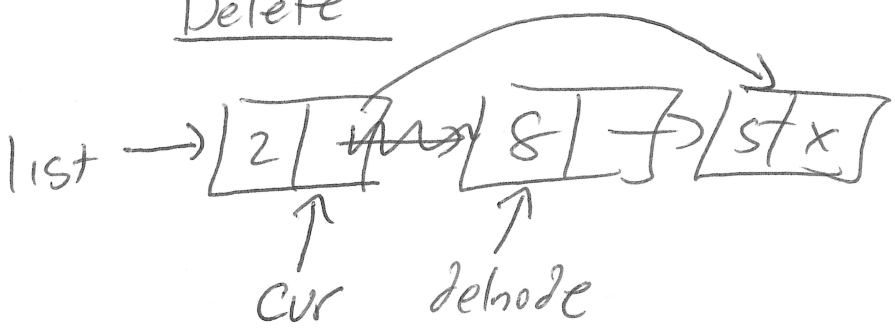
COP 3502 - 9/7/2023

0. Recitations - Go to same starting 9/11
   Will pick groups
1. LAs taking appointments - Please use
2. Quiz - Shows level of where you need to get + level of questions on exams
3. Linked Lists!!!
   - look @ website code/resources
   - Live Code Josephus Problem
     - V1 #s
     - V2 names (exercise left to class)

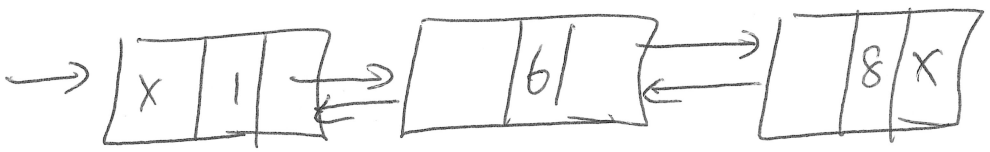
1. Delete Code
2. Doubly Linked List Draw
3. CD example

Delete




```
cur->next = delnode->next;
free(delnode);
```

Doubly Linked List

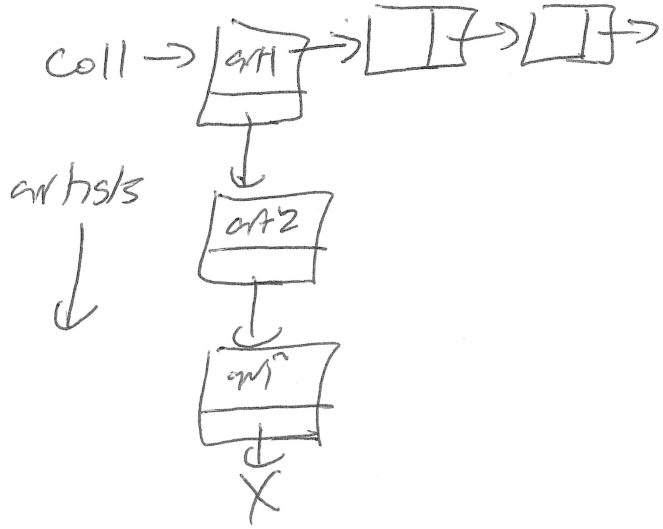



```
struct dllnode {
    int data;
    struct dllnode* prev;
    struct dllnode *next;
}
```

(1) Advantage: Move back + forth

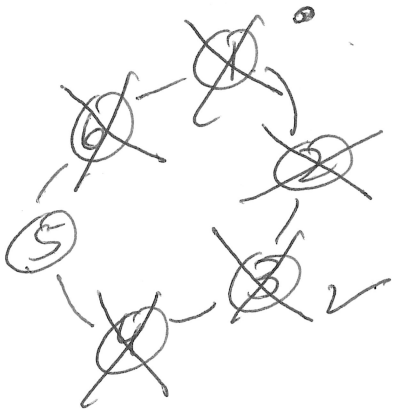
(2) Disadvantage: a little more memory
more "fixing" for each op.
(annoying!)

CD - Linked list of linked lists



albums left → right

Josephus Problem



n people circle (1 to n)

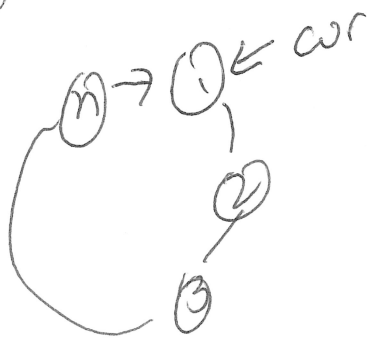
Start at #1

count every other + remove that person from contention

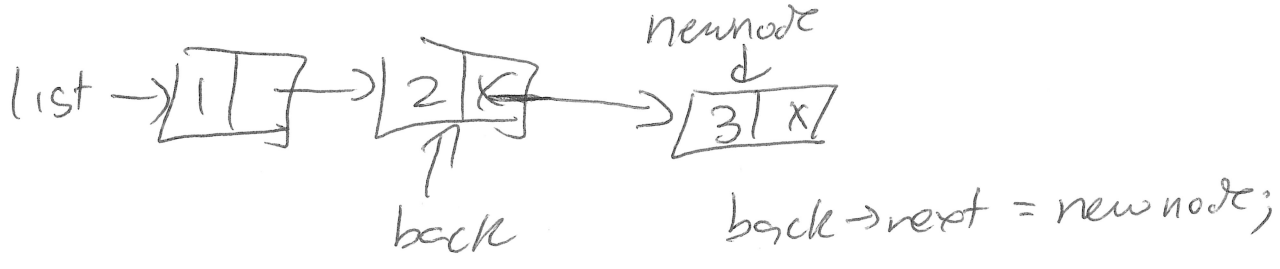
DEL 2 (1 skip)
DEL 4 (3 skip)
DEL 6 (5 skip)
DEL 3 (1 skip)
DEL 1 (5 skip)

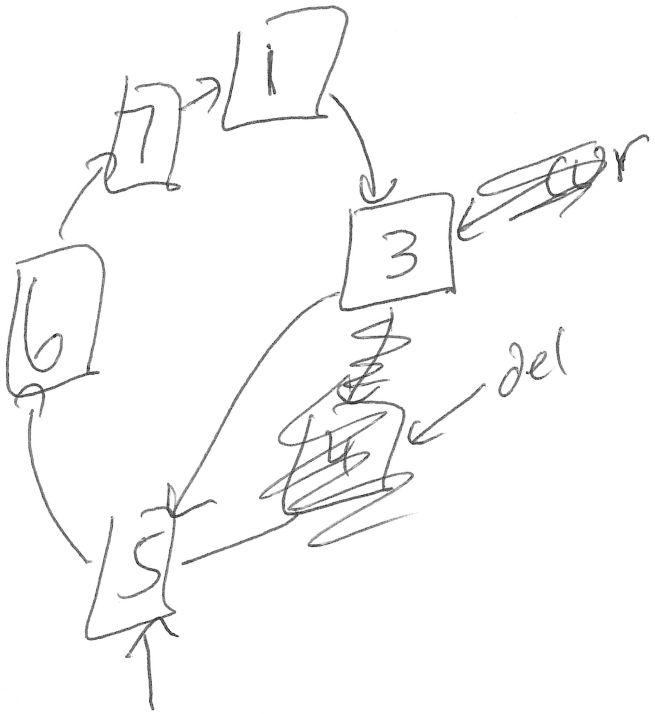
My version

1. input n
2. build circular LL #s 1 → n



3. delete every other (n-1 times)
4. Print out who is left!






```
del = cur -> next;
if (cur == del) {
    free(cur)
    return NULL;
}
```

```
cur->next = del->next;
free(del)
cur = cur->next;
```