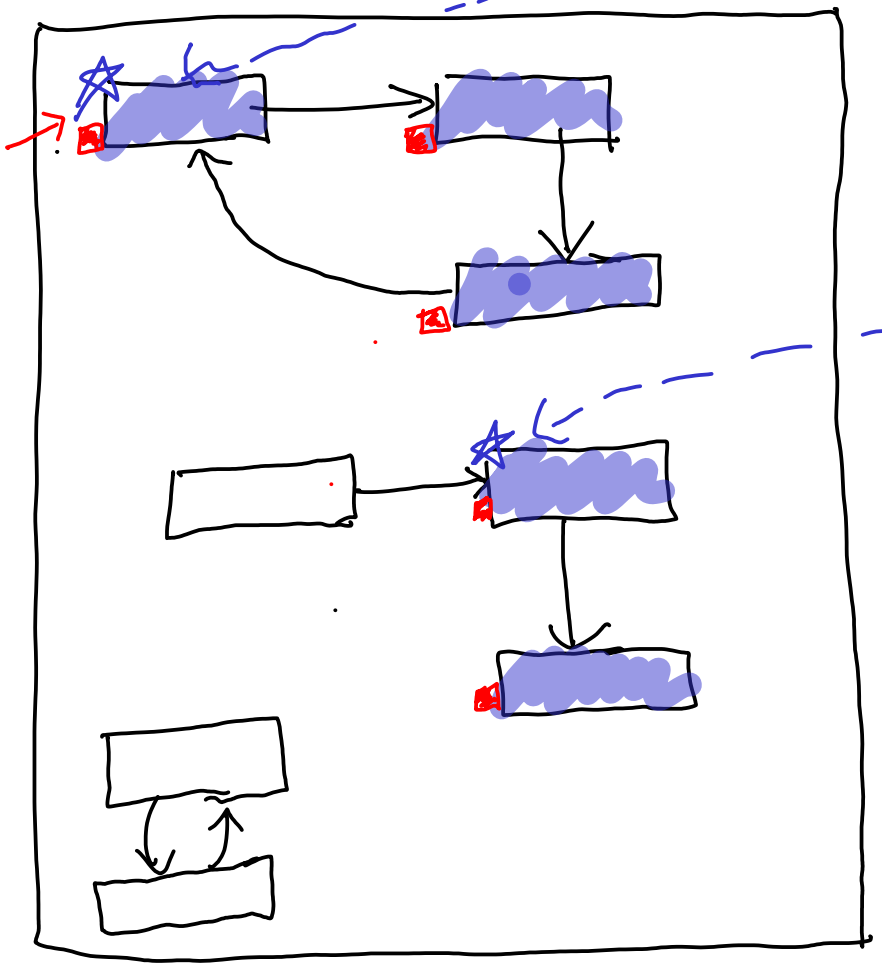


(link v_f •)

(t v_n •)

(link e_1 e_2)

Why do we have to stop?

REACHABILITY

≈

LIVE DATA

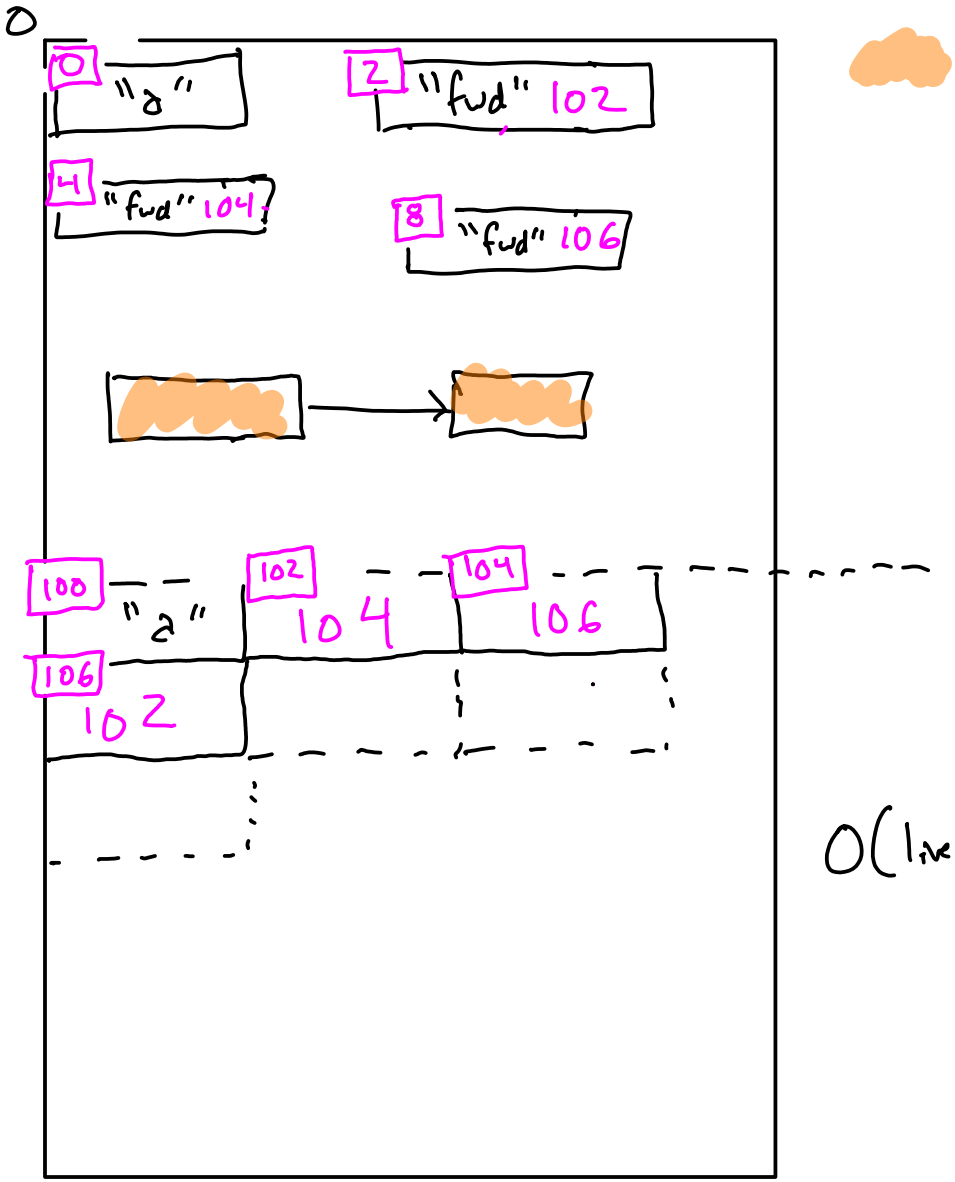
Mark + Sweep

O(live)

Step 1: Do graph traversal + mark live data

Step 2: Loop over memory + free not-live data O(heap)

Fragmentation :(



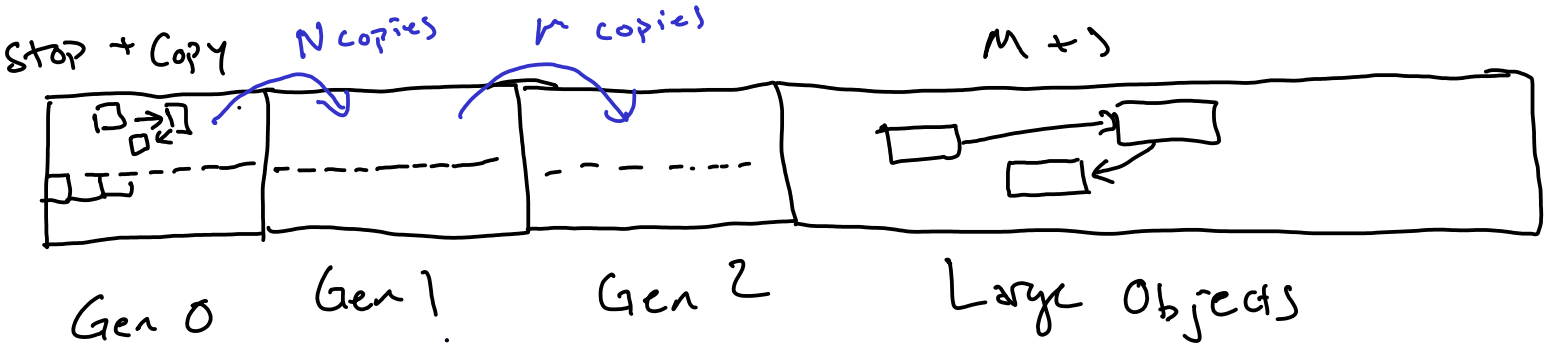
= dead

```
fun copy(loc, heap):
    c = heap.get(loc)
    heap.set(cur-alloc-ptr,
             c)
    heap.set(loc, ["fwd", cur-alloc-ptr])
    move-up(cur-alloc-ptr)
    for each(n from neighbors(c)):
        if not(is-fwd(heap.get(n))):
            copy(n, heap)
```

O(live data)

```
fun cleanup
    # update back refs
```

No fragmentation


Stop + Copy
N copies
M copies
M + 1
Gen 0
Gen 1
Gen 2
Large Objects