Summary of Key Allocator Policies

- **Placement policy:**
  - First-fit, next-fit, best-fit, etc.
  - Trades off lower throughput for less fragmentation
- **Splitting policy:**
  - When do we go ahead and split free blocks?
  - How much inter g to tolerate?
- **Coalescing policy:**
  - ***Immediate coalescing:*** coalesce ea is called
  - ***Deferred coalescing:*** try to improve performance of **`free`** by deferring coalescing until needed. Examples:
    - Coalesce as you scan the free list for **`malloc`**
    - Coalesce when the amount of external fragmentation reaches some threshold

Implicit Lists: Summary

- **Implementation: very simple**
- **Allocate cost:**
  - linear time worst case
- **Free cost:**
  - constant time worst case
  - even with coale
- **Memory usage:**
  - will depend on placement policy
  - First-fit, next-fit or best-fit

- **Not used in practice for `malloc/free` because of linear-time allocation**
  - used in many special purpose applications

- **However, the concepts of splitting and boundary tag coalescing are general to *all* allocators**