













Reverse mapping

- Suppose I pick a physical page X, what is it being used for?
- Many ways you could represent this
- * Remember, some systems have a lot of physical memory
 - ✤ So we want to keep fixed, per-page overheads low
 - Can dynamically allocate some extra bookkeeping
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Priority Search Tree











Types of pages

- Unreclaimable free pages (obviously), pages pinned in memory by a process, temporarily locked pages, pages used for certain purposes by the kernel
- Swappable anonymous pages, tmpfs, shared IPC memory
- Syncable cached disk data
- Discardable unused pages in cache allocators

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General principles

Steal pages from user programs, especially those that haven't

Temporal locality: get pages that haven't been used in a while

When a page is reclaimed, remove all references at once

* Removing one reference is a waste of time

Laziness: Favor pages that are "cheaper" to free + Ex: Waiting on write back of dirty data takes time

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Free harmless pages first

been used recently







