Operating System: Project 4

Instructed by Wei~Xu Due on Jan 8, 2021

Task 3

The write-back cache overrides our original read_block() and write_segment() functions with their _through_cache() versions. The cache occupies 4MB space with 512 cachelines, and each cacheline contains contiguous 8 blocks. Upon any cache miss, LRU policy is applied to decide to-be-deleted cachelines. When an eviction finishes, all evicted dirty cachelines are fsync()ed to disk.

The cache also provides init_cache() and flush_cache() functions to support file system initialization and garbage collection.