



复查测验提交: Report7

用户	1819 樊顺(Fan Shun)
课程	Operating Systems (Spring 2021)
测试	Report7
已开始	21-4-28 下午2:44
已提交	21-5-5 上午3:37
截止日期	21-5-5 下午2:00
状态	需要评分
尝试分数	成绩尚未公布。
已用时间	156 小时 53 分钟
显示的结果	已提交的答案, 正确答案, 反馈

问题 1

需要评分

Briefly describe the FIFO page-replacement algorithm and analyze its algorithm complexity

所选答案: Replace the page that is first transferred to the memory, that is, replace the page that has been in memory for the longest time. Arranged in a queue according to the order of entering the memory, enter from the end of the queue, and delete from the head of the queue.
The replacement time complexity is $O(1)$.

正确答案: [无]

回答反馈: [未给定]

问题 2

需要评分

Briefly describe the MIN page-replacement algorithm and analyze its algorithm complexity

所选答案: The MIN page replacement algorithm is an ideal algorithm that requires page information needed in the future.
Algorithm complexity: N is the number of upcoming pages, k is the cache size time: $O(\log N)$ is updated.
When the priority queue is used to update a page, so the total is $O(N \log N)$

正确答案: [无]

回答反馈: [未给定]

问题 3

需要评分

Briefly describe the LRU page-replacement algorithm and analyze its algorithm complexity

所选答案: Move the matching page to the top of the cache and return to the matching page. If the cache is not full, put the required page at the top of the cache. If the cache is full, delete the bottommost page in the cache and place it at the top of the cache.
Algorithm complexity: n is the number of upcoming pages, k is the cache size time: $O(1)$ is updated when one page enters, so the total is $O(n)$.

正确答案: [无]

回答反馈: [未给定]

问题 4

需要评分

Briefly describe the clock algorithm and analyze its algorithm complexity

所选答案: If it hits, the page in the cache is returned, and the valid bit of the page is set to 1. If the page pointed to by the pointer has a valid bit of 1, set the valid bit to 0, then move the pointer to the next page and do the same until the page pointed to by the pointer is already 0. If the page pointed to by the pointer already has a valid bit of 0, place the page here and set the valid bit to 1.
Algorithm complexity: N is the number of upcoming pages, K is the cache size time: when the page appears and is missing, the number of checks does not exceed k times, so the total is $O(NK)$.

正确答案: [无]

回答反馈: [未给定]

问题 5

需要评分

完成代码作业并回答hit rate:

1.in: FIFO: _____% MIN: _____% LRU: _____% CLOCK: _____%
2.in: FIFO: _____% MIN: _____% LRU: _____% CLOCK: _____%
3.in: FIFO: _____% MIN: _____% LRU: _____% CLOCK: _____%

所选答案: 1.in: FIFO:11.98% MIN:42.40% LRU:11.76% CLOCK:11.93%
2.in: FIFO:11.85% MIN:43.72% LRU:11.85% CLOCK:11.83%
3.in: FIFO:82.36% MIN:88.58% LRU:82.39% CLOCK:82.38%

正确答案: [无]

回答反馈: [未给定]

2021年5月5日 星期三 上午03时37分17秒 CST

← 确定