T6 Q2

2019年11月19日 21:45

How to determine to which tag to be removed if the set introduces a new tag?

This project uses the First In First Out mechanism which matches the nature of LRU algorithm perfectly. Queue is an implementation of the First In First Out mechanism which can be used in the field of replacing tag when such criteria are encountered. This determines that the tail of a queue is always least recent used tags which is about to be popped up if the set introduces a new tag

Cache has the functionality of N sets and K tags.
For a address A, it is designated to encounter one of the four following scenarios.

- added to the tags directly if the number of tags is smaller than K and tags don't contain address yet
- remove the existing entry of A and added to the tags again if the number of tags is smaller than K and tags contain address
- remove the existing entry of A and add A to the front of the tags, if the number of tags is equal to K and tags contain address.
- Remove the least recent used entry, add A to the front of the tags if the number of tags is equal to K and tags don't contain address yet.