Cache

C++ for Developers

Cache

Used for accessing frequently used data.

- Instead of fetching it everytime, we just look through the cache

Behaviour:
- Latest search ends up at front. Discard items after a defined scope.

Cache

Usual methods in a cache is:
- put(e) – Adds the data to the cache
- get(e) – Fetches the data from the cache
- clear() – Clears the cache
- remove(e) – If an element change, we want to delete it.

Types

LRU (Least Recently Used)
Put latest search at front, delete the objects pushed
out of capacity.

LFU (Least Frequently Used)
Put most frequently searched element at front and
delete least frequently searched.

FIFO
Put latest search at back, and push oldest search out
front.

Cache

Caches are often written as LinkedLists or Maps depending on function.

LRU and FIFO - LinkedList
LFU - Maps / Sets

LRU Behaviour

At start 4 elements

Insert one

Found in cache

Head

Tail

Head

Tail

Head

Item found here

Tail

Head

Item found here

Tail