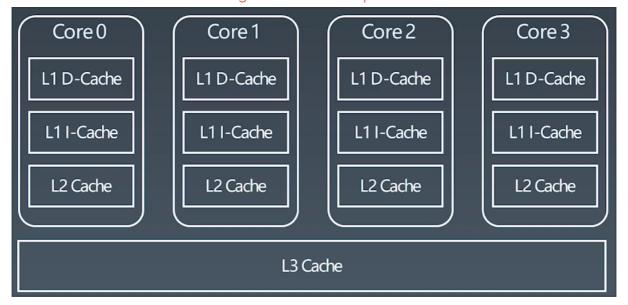
### 22. LRU Cache

# Cache 缓存

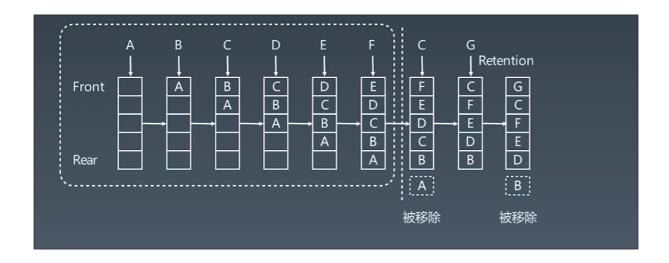
- 1. 记忆
- 2. 钱包、储物柜
- 3. 代码模块
- 4. CPU CPU Socket: Understanding the Meltdown exploit



## LRU Cache

- 两个要素:
  - 大小
  - 替换策略
- Hash Table + Double Linked List
- 时间复杂度:
  - 查询: O(1)
  - 修改:○(1)
  - 更新: 〇(1)

## LRU Cache 工作示例图



A front push  $\rightarrow$  B front push  $\rightarrow$  C front push  $\rightarrow$  D front push  $\rightarrow$  E front push  $\rightarrow$  F full  $\rightarrow$  A tail pop  $\rightarrow$  F front push  $\rightarrow$  G full  $\rightarrow$  B tail pop  $\rightarrow$  G front push

# 替换策略

- LFU Least Frequently Used
- LRU Least Recently Used
- 替换算法总览

### 示例代码

LRU 示例代码

#Algorithm/Part II : Theory/Data Structure#