

CheatSheet: Feature Design For Job Interview

INTERVIEW

- PDF Link: [cheatsheet-featuredesign-A4.pdf](#), Category: interview
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-featuredesign-A4>
- Related posts: CheatSheet: Leetcode For Code Interview, [#denny-cheatsheets](#)

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1.1 Design Technical Modules

Num	Name	Summary
1	Design a distributed UUID generator	
2	Design An API Rate Limiter	link, link
3	Design a circuit breaker	
4	Design a stack supporting push/pop/getmin/getmostfrequent	
5	Implement a timer	
6	Thread-safe Hashmap	
7	Top URL hits	
8	Unique url hits	
9	Delayed task scheduling	
10	Design a client-server API to build a rich document editor	

1.2 Misc

Num	Name	Summary
1	Find out the difference between two files. Majority of these two are the same	#lcs - Longest Common Subsequence
2	How to support feature of "diff 1.txt 2. txt"	
3	How to store 2TB data into 3 disks of 1TB. And be tolerant for one disk failure	A, B, C. And $C = A \text{ XOR } B$

1.3 Top 20 Object-Oriented Design Problems

Num	Problem	Category/Tag	Example
1	Max Stack	#stack , #oodesign	Leetcode: Max Stack
2	LRU cache	#linkedlist, #oodesign	Leetcode: LRU Cache
3	LFU cache	#linkedlist, #oodesign	Leetcode: LFU Cache
4	Design Hit Counter	#oodesign	Leetcode: Design Hit Counter
5	Logger Rate Limiter	#oodesign	Leetcode: Logger Rate Limiter
6	Design HashMap	#oodesign	Leetcode: Design HashMap
7	Insert Delete GetRandom O(1)	#oodesign, #random	Leetcode: Insert Delete GetRandom O(1)

1.4 More Resources

License: Code is licensed under MIT License.

<https://github.com/binhnguyennus/awesome-scalability>