
Engineering Assessment

Description

Write the code (preferably in javascript or python) to implement a “Least-Recently Used” (LRU) Cache. A correctly constructed LRU Cache will have its maximum capacity set at the time of construction, and when adding new keys that cause the capacity to be exceeded, the “least recently used” item needs to be identified and discarded.

```
1 let lruCache = new LRUCache({
2   size: <integer number of max items>
3 });
4 lruCache.put(key, value)
5 lruCache.get(key) -> value
6 lruCache.del(key)
7 lruCache.reset()
```

Key Requirements

1. You must **initialise** a cache with a **maximum size**
2. You must be able to **put** the value of a key.
3. You must be able to **get** the value of a key.

Note : Both, reading *and* writing the value of a key are considered a *use* of that key.

4. You must be able to **delete** a key. Attempting to delete a key that doesn't exist is a no-op.
5. You must be able to **reset** the cache, which will remove all items from the cache.

Submission Instructions

Must be submitted by 5pm the business day **before** your scheduled interview on site.

Upload to github and send us your project / repository /archive to dev.careers@chisel.ai

Please also use this email address to send in any questions you may have about this assignment.

Evaluation

Your submission will be evaluated based on the following criteria.

1. How well the application captures the functionality described in the requirements, in terms of answer correctness and interface.
2. The data types used in the solution.
3. The clarity, readability and organization of the code.
4. Documentation around the process to setup and run the code

Our People & Ops Coordinator asked us to put in a few hints.

1. We want you to be successful, please ask questions if you need clarification. It is important you learn as much about us as we want to learn about you.
2. If you make an assumption be sure you detail what and why you made that assumption.
3. Go for the stretch – put max effort into your submission.
4. Did you test it?
5. Do some homework on the company and its teams before coming in.

