

Test

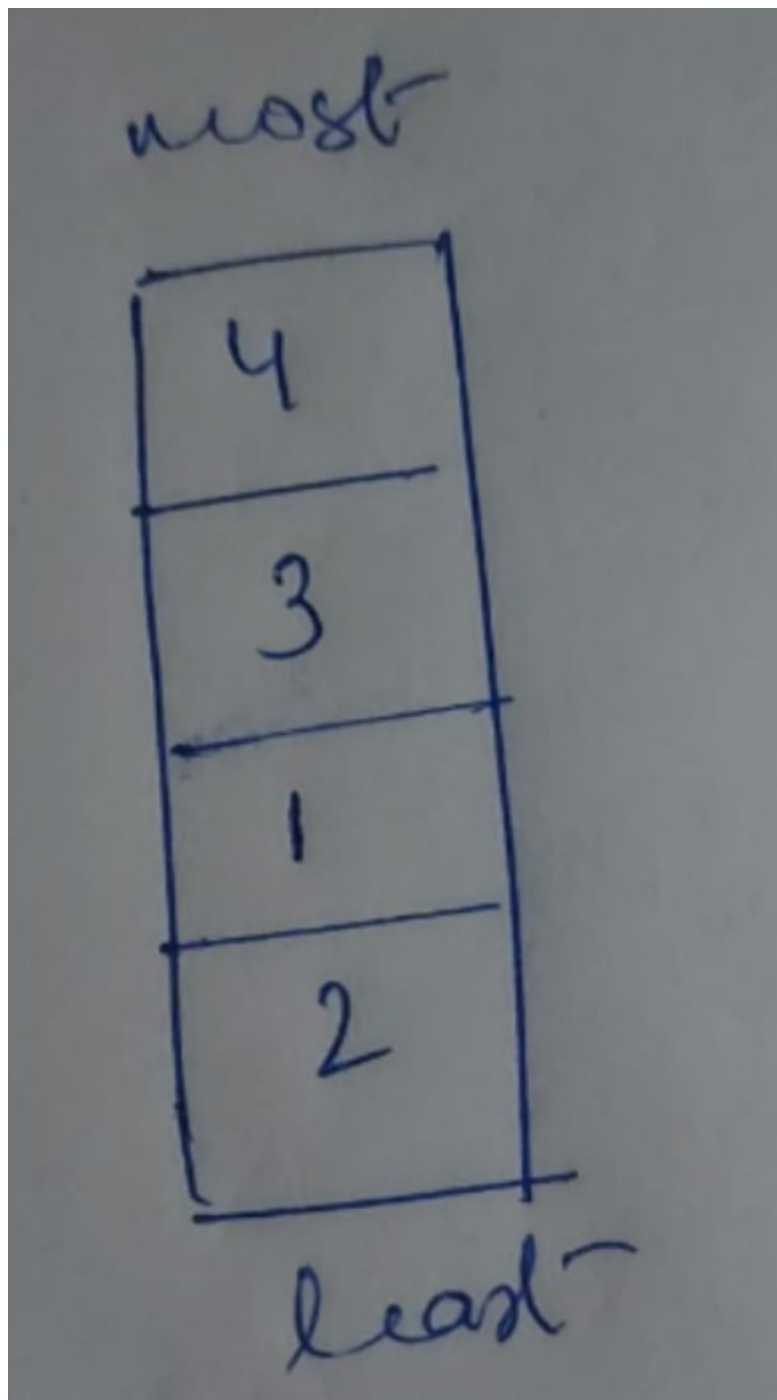
1. Describe LRU cache in brief?

Ans:-

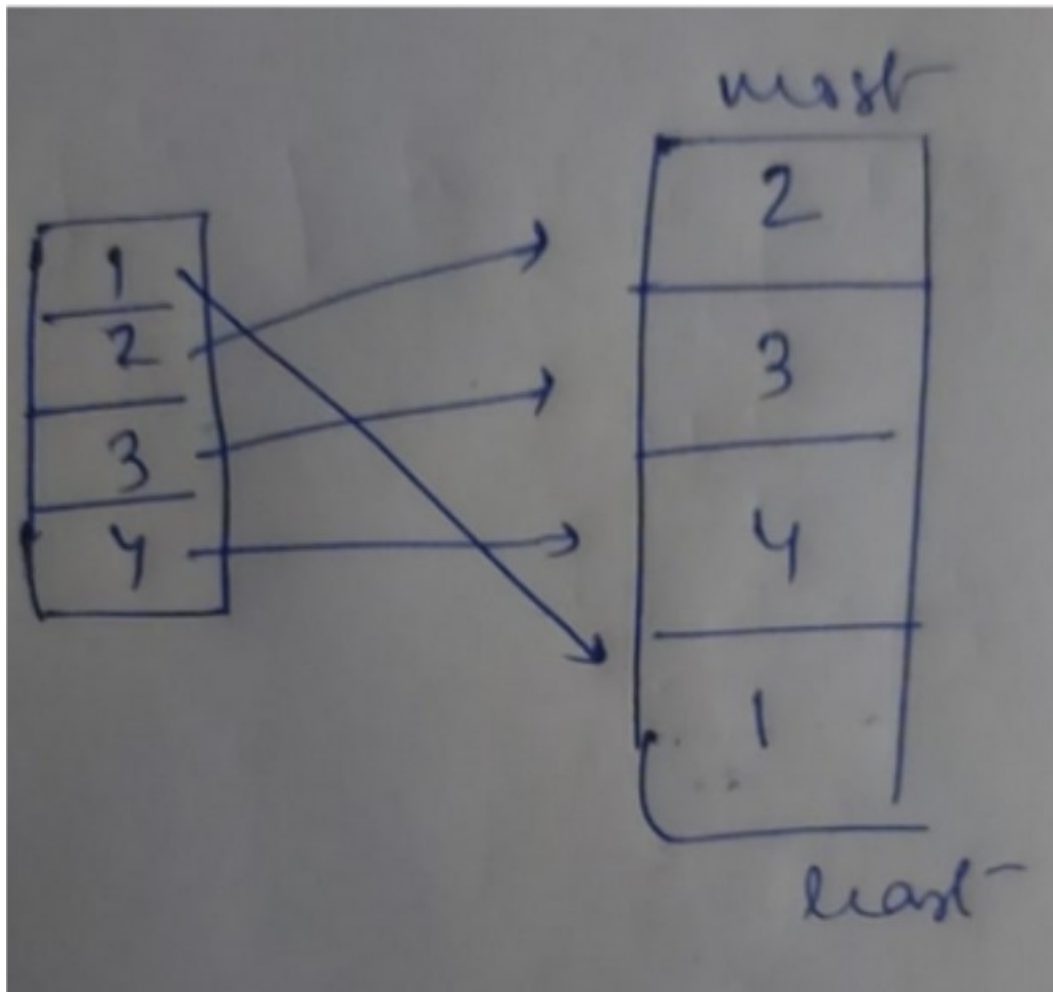
LRU Cache abbreviation Least recently used. It is to identify which item has not been used for long time.

Suppose we have 4 items,

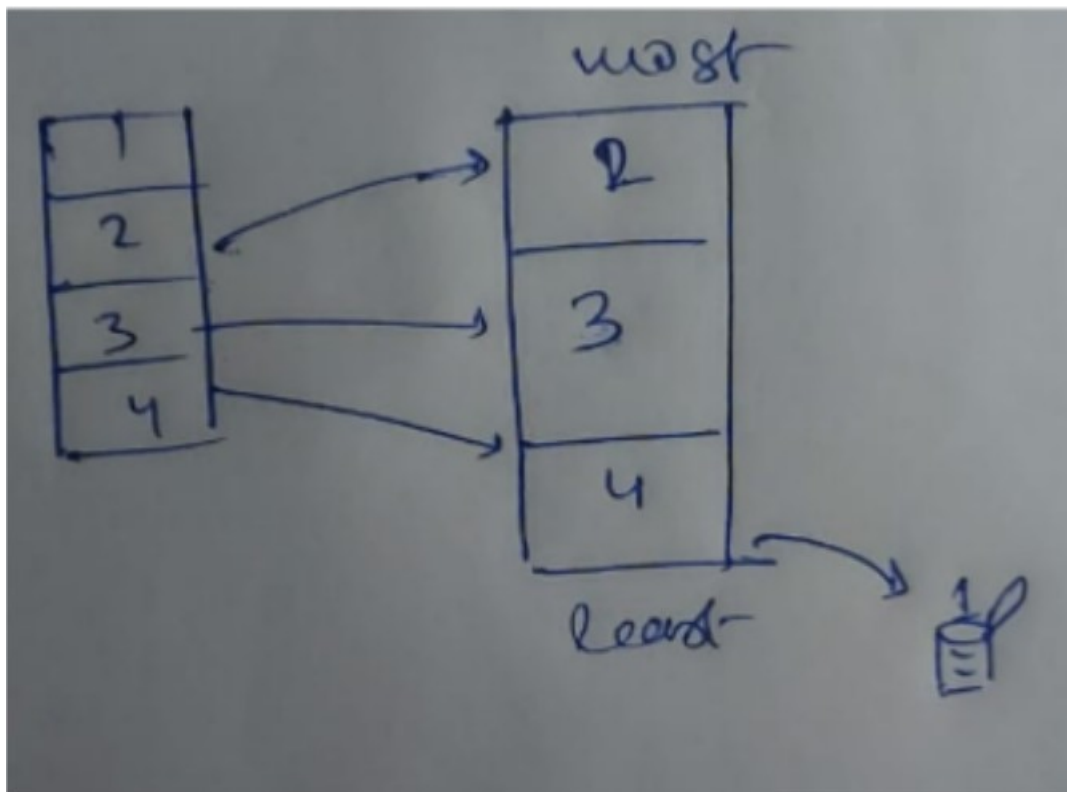
if the user request for 4 then 3 then 1 then 2 and it gets the position for most recently used as the user demands the items gets listed like the image given below



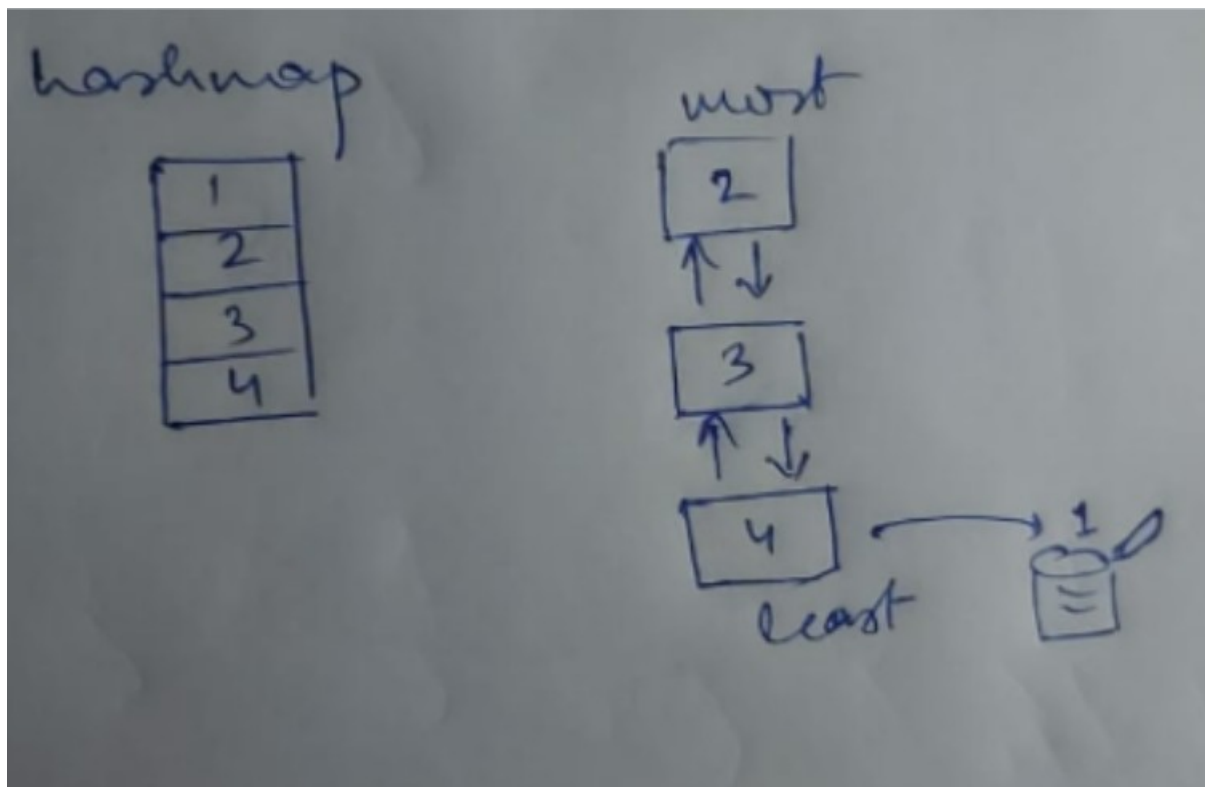
suppose if the user demands particular items most of the time then it move to the most recently used like the image given below



now if the database has only 3 spaces then the last one will be evicted like the image given below



it uses double linked list and hashmap to do this process like the image given below



2. What happens when you type www.atainu.com in your browser.

Ans:

When we enter any URL in the browser. The browser tries to find the IP address for the domain name via the DNS server then the browser sends the HTTP request to the server to fetch the data. The server then sends back an HTTP response. The browser sends the requests for the HTML. Once the page is loaded the browser sends further async requests if needed.

3. What is NAT and ARP? Describe briefly

Ans:

NAT-

- network address translation
- one to one or many to one relation
- it slows down the rate of depletion of available ip address by converting local ip to public ip address.

ARP-

- if is a network protocol to find out the hardware address from an IP address.
 - The sending device uses ARP to translate IP addresses to MAC addresses.
 - The device sends an ARP request message containing the IP address of the receiving device.
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4. Describe deadlock characteristics.

Ans:

It happens when two or more processes require some resource to complete their execution that is held by the other process.

- mutual exclusion- a resource that is held by one process at a time.
- hold and wait- a process that holds many resources and even requests more

resources from other processes. which are holding them.

- No preemption- process which can only release resources voluntarily.
 - circular wait- process gets token to execute the resources for some time then releases the token.
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5. Describe pagination in brief.

Ans:

Pagination is the process of separating print or digital content into discrete pages. For print documents and some online content, pagination also refers to the automated process of adding consecutive numbers to identify the sequential order of pages. Some types of website content benefit from being broken into separate pages to make them more user-friendly, such as search engine results pages , blogs and discussion forums