# Assignment-2

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2(a) Sol^n:- In this scenario, it has been assumed/given that the network will never get partitioned. This means that every server or device will be connected to the network and there is no network failure. Further, it is also given that message arrive "instantaneously". This suggests that if there has been some change in file, then message transmissions corresponding to this change will be available to every device over the network instantly.

Now talking about promise (i), if all the changes are to be immediately visible to each connected use in this scenario, we have to assume that the time taken to update any change in any server in this network is negligible. If this is true, then as there is no change of network failure as well as here is instant message transmitting, this promise can be fulfilled and hence consistency generated. Otherwise there might be inconsistency for the already viewing which server update any change.

Now as explained about, if consistency is granted and there is no network failure (partition), we talk about promise (ii). In the CAP theorem, a simple failure and has a fair chance of partitioning and hence only two of consistency, Availability or partition Tolerance can be guaranteed in a system. But in this case, as there is no network failure

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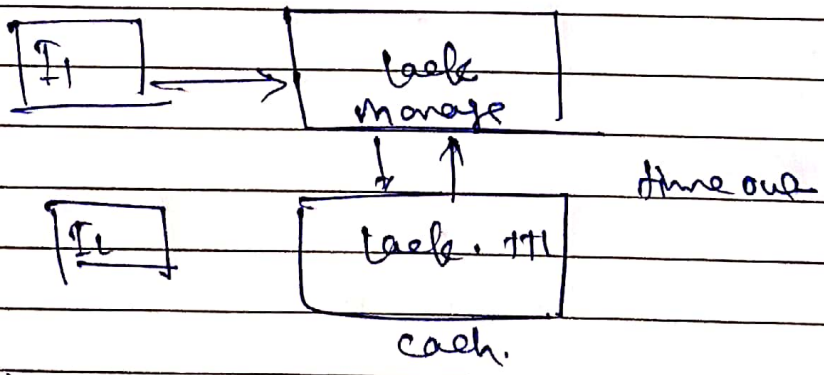
CAP theorem can't be applied. Hence, the hypothetical system of Dropbox can allow any user to access any file on any of the two devices at any time. In other words, Availability is also guaranteed.

b)

Soln:- Leases or locks are the mechanism used to lock the instance of cache and similarly there are given by lock manager for limited amount of time. It may be before the is released automatically & if a client fail its lock will be given to others.




Q:- if Instance 1 also for lock it gets lock with TTL (time or if & if not released before time time out occurs & lock it released & cache given to others.