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Q2:- A Process in a distributed system runs on one node & accesses data from another node. After some time, for Load balancing purposes. This proces relocates to a different node. what kind of transparencies should be provided for this purpose in a distributed system?

Ans:- For the given scenerio following transparencies should be Provided in a distributed system.

- Access:- Hide differences in data representation & how data is accessed
- Location:-
  Hide where a resource is located. It should not matter where is next node.
- Migration:-
  Hide that a resource may move to another node. Users should not worry on resource will move or not.

Relocation:-
Hide that a resource may be moved to another location

while resources are in use. If a resource is replicated on several nodes (locations) - User should be able to access it as a single resource.

Q1:- Early distributed computing system approaches assumed that middleware must provide complete distribution transparency; currently this opinion is changing why?

Ans:- The role of a middleware in a distributed system is to enhance transparency so users interact with it just like user was interacting with single system instead of multiples.

complete distribution transparency opinion changing because it can decrease performance that users will not accepts.