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Answers to FDS Quiz
CS 6963
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1.1) According to the section 3.2, it order of entries of the TLT will be changed to a random
order
1.2) Because it has to return deterministic address for reads and writes. As it said in the paper,
"Readers and writers rendezvous because tractserver lookup is deterministic: as long as a reader
has the same TLT the writer had when it wrote a tract, a reader's TLT lookup will point to the
same tractserver.". In my opinion, if it generates the whole TLT randomly, it would not be
deterministic anymore.
1.3) At first glance, I could not tell that there is a contradiction. But after seeing this question and
reading the corresponding sections more precisely, I think there is contradiction. Even if there is
only one disk failure, the tractserver that would seat in the spot of dead tractserver is picked out
randomly and deny the concept of deterministic address returns.

2) In my opinion, I believe that they may receive *A, B* or *I*. Here is the issue of replicas. I think
the key of this question is the last paragraph of section 3.5 where it says, "A tractserver recently
assigned to a TLT entry will not have the same state as the entry's other replicas until data
copying is complete. While in this state, tractservers reject read requests; clients use other
replicas instead."
Both clients *A* and *B* receives ACK that they write was successful but nobody knows about the
process of copying the data to the replicas of the tract/blob. And as it is mentioned in the key
paragraph, while in this state, tractservers reject read requests and redirect the clients to other
replicas which could have any of *A, B* or *I* values.

3) As a matter of fact, it was my first time studying different methods of managing data on large
clusters which recovery from failure is a big deal. As long as I understand this paper, it has some
novel idea about metadata server comparing to traditional metadata. Also in case of efficiency, it
looks more time efficient. The failure recovery sections does not look simple but I might use the
idea if I supposed to design such a thing.