Name 1:   Date:
Name 2:

Consider the following relation:

EMP(eid: integer, sal: integer, age: real, did: integer);

The data file is sorted by eid.
There is an index on eid
There is an index on age.

1) What is impact of the indexes on insertions to EMP?
2) Give an example of an update that is definitely faster because the available indexes.
3) Give an example of an update that is definitely slowed down because of the indexes.
4) Can you give an example of an update that is neither sped up nor slowed down by the indexes?

1) The indexes accelerate checking if the primary key of the new tuple exists already. But, indexes must be must be updated. That takes some time.

2) Update salary of a person. with a given eid.

3) Update the age of the people whose birthday is today
   ○ the age index needs to be updated
   • An we need to do a sequential scan nonetheless.

4) Give a 10% raise to everybody
   The sal field is not indexed, so indexes are not updated.