bonus quiz

Time Limit None

Due Apr 5 at 11:59pm

Points 10

Questions 11

Available Mar 28 at 12am - Apr 5 at 11:59pm 9 days

Instructions

This quiz covers some key concepts in chapters 5-7. This quiz does not reflect the difficulty level of exam 2.

This bonus quiz will be counted as 10 bonus points towards your exam 2 score.

Only 1 attempt allowed.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	34 minutes	4.67 out of 10

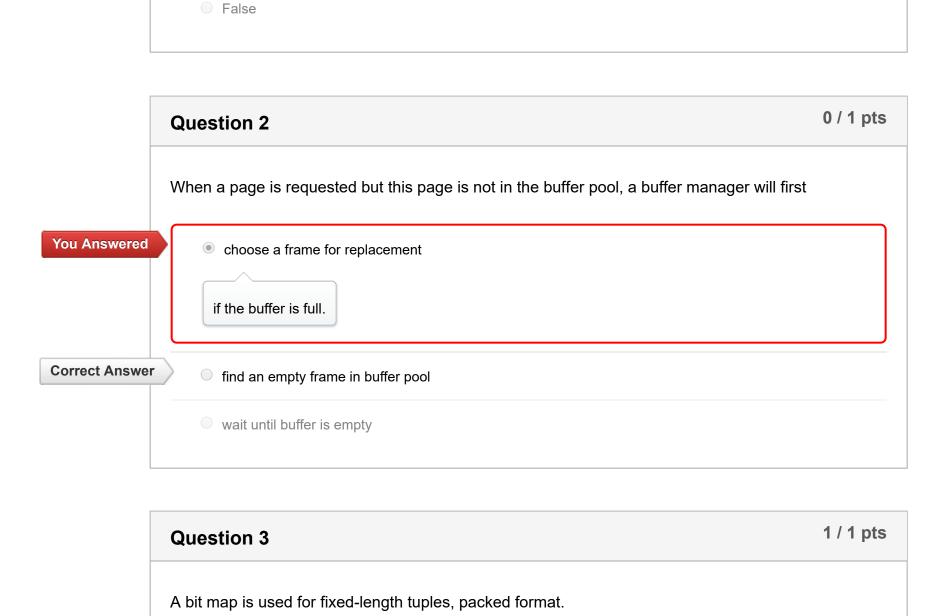
Score for this quiz: 4.67 out of 10

Submitted Apr 5 at 11:07pm

This attempt took 34 minutes.

Question 1	0 / 0 pts

I promise I am doing this quiz all by myself.



Correct!

True

True

False

Question 4 1 / 1 pts

Comparing heap file with sorted file, sorted file can be more costly to maintain (meaning, more costly to handle "insert" and "delete")

Correct!

- True
- False

Question 5 0 / 1 pts

Suppose I have a large-sized relation "income", which has attributes "id, age, income". I know this table will have a lot of queries for "select records of a certain age". Suppose the relation is stored as heap file, unsorted.

Between the following two strategies, which one do you think will work better?

Correct Answer

build index for age

You Answered

sort based on age

0 / 1 pts **Question 6** Suppose one index node can have 3 children What is the maximum number of pages a 2 level B+ tree can point to? (level 1 is the root, level 2 is the data entry nodes) You Answered 8 **Correct Answers** How many data entry nodes are there? How many pages can one data entry node point to?

Question 7 1 / 1 pts

Suppose one index node can have 3 children

What is the maximum number of pages an n level B+ tree can point to? (level 1 is the root, and level n is the data entry nodes)

- $3 \times n$
- \odot 3^n
- n^3

Question 8

0.67 / 1 pts

in block nested loop join, the cost is

$$M+\lceil rac{M}{B-2}
ceil imes N$$

where M is the number of pages for relation R, N is the number of pages for relation S, and B is the number of pages available in memory.

Which following explanations are correct? Choose all you think is correct

Correct Answer

Correct!

▼ The outer relation R will be scanned only once. That's why the first term M

Correct!

✓ In memory, 1 page for S, 1 page for output, and B-2 pages for R

Question 9 1 / 1 pts

Suppose B=52, M=1000, N=100

where M is the number of pages for relation R, N is the number of pages for relation S, and B is the number of pages available in memory.

Which relation should be the outer relation in block nested loop join, so that the cost is lower? R or S

R

Correct!

S

100+(100/50)*1000=2100

Question 10

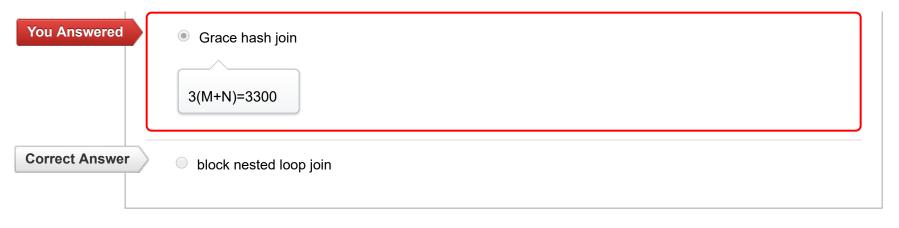
0 / 1 pts

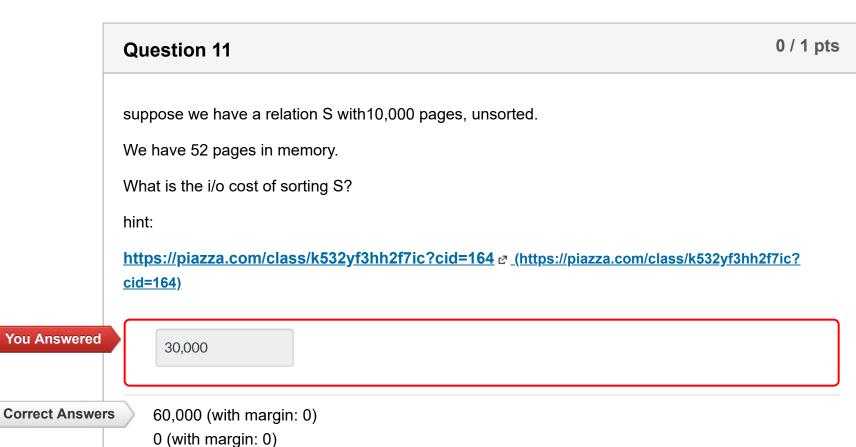
Suppose B=52, M=1000, N=100

where M is the number of pages for relation R, N is the number of pages for relation S, and B is the number of pages available in memory.

Which would be faster? The best block nested loop join, or Grace hash join

They are the same





For each round, how many pages need to be read? How many pages need to be written?

Quiz Score: 4.67 out of 10