

Q1

1/1 point (ungraded)

Consider the following general assertion on tables Faculty(name,homeDept) and Teaches(prof,course,dept): create assertion A (not exists (select * from Faculty where name not in (select prof from Teaches where dept = homeDept))) Which of the following modifications can NOT cause the constraint to become violated?

☐ update to Faculty.homeDept

☐ deletion from Teaches

☐ update to Teaches.prof

☒ insertion into Teaches

Explanation

The assertion states that every faculty member teaches at least one course in her home department. Adding a new course cannot violate the constraint.

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You have used 2 of 4 attempts

Answers are displayed within the problem

Q2

1/1 point (ungraded)

Consider the following general assertion on table Item(category,price): create assertion A ($25 < \text{any}(\text{select sum(price) from Item group by category})$) Which of the following modifications can NOT cause the constraint to become violated? Choose the best (most reasonable) answer of the four choices.

☒ insertion into Item

☐ deletion from Item

☐ update to Item.category

☐ update to Item.price

Explanation

The assertion states that some category has items whose total price exceeds 25. Inserting a new item leaves $\text{sum}(\text{price})$ unchanged or increases it for each category, so the constraint cannot be violated. All other modifications can lower $\text{sum}(\text{price})$ in a category (we assume prices are greater than 0 and we cannot add additional categories), possibly violating the constraint.

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