数据库原理CH5作业

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P233-5.5

Show how to enforce the constraint "an instructor cannot teach two different sections in a semester in the same time slot." using a trigger (remember that the constraint can be violated by changes to the teaches relation as well as to the section relation).

```
create trigger timeslot_check after insert,update
on teaches
referencing new row as nrow
for each row
begin
    select time_slot_id as o_tid
    from section
    where (section.course_id=teaches.course_id and section.sec_id=teaches.sec_id
and section.semester=teaches.semester and section.year=teaches.year)
    select time_slot_id as n_tid
    from section
    where (section.course_id=nrow.course_id and section.sec_id=nrow.sec_id and
section.semester=nrow.semester and section.year=nrow.year)
    if o_tid=n_tid
    rollback
end

create trigger timeslot_check after insert,update
on teaches
referencing new row as nrow
for each row
begin
    select count(time_slot_id) as cnt
    from teaches join section
    where (section.time_slot_id=nrow.time_slot_id) or
(section.course_id=nrow.course_id and section.sec_id=nrow.sec_id and
section.semester=nrow.semester and section.year=nrow.year)
    group by ID

    if cnt>1
    rollback
end
```