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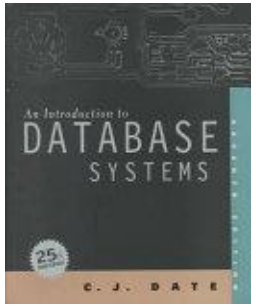
Database Management Systems

Chapter (9)



Views

9 - 2

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What are views for?

- There are many reasons why view support desirable.
  - Views provide automatic security for hidden data — မမြင်စေချင်တာကို မပြမိအောင်
  - Views provide a shorthand or ‘macro’ capability — Simplex queryတွေကို simple query
  - Views allow the same data to be seen by different users in different ways at the same time — တစ်ချိန်ထဲမှာ နည်းအမျိုးမျိုးနဲ့ users တွေ က ဝိုင်းသုံးချင်တာ
  - Views can provide logical data independence

What are views for?

- **Logical Data Independence**
  - The immunity of users and user programs to changes in the logical structure of the database (*logical အပိုင်းလေးတစ်ခုကိုဘဲ ပြောင်းရေးနိုင်*)
  - There are two aspects to such logical data independence
    - Growth
    - Restructuring

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What are views for?

- Growth
  - There are two possible kinds of growth that can occur:
    - The expansion of an existing base relvar to include a new attribute, corresponding to the addition of new information concerning some existing type of object – for example, the addition of a DISCOUNT attribute to the suppliers base relvar.

      Base ထဲကို အသစ်ထပ်ထည့်နိုင်၊
    - The inclusion of a new base relvar, corresponding to the addition of a new type of object- for example, the addition of project information to the suppliers and parts database

      လက်ရှိ သုံးနေတဲ့အထဲကို table အသစ် ထပ်ထည့်၊ လက်ရှိအလုပ်ကို မပြောင်းလဲစေပါ

What are views for?

- Restructuring
  - it might become necessary to restructuring the database in some way such that, although the overall information content remains the same, the logical placement of information changes – i.e , the allocation of attributes to base relvars is altered in some way.

```
VAR SNC BASE RELATION { S# S#, SNAME NAME, CITY CHAR }
   PRIMARY KEY {S#};

VAR ST BASE PRLATION { S# S#, STATUS INTEGER }
      PRIMARY KEY {S#};

VAR S VIEW
            SNC JOIN ST ;
```

DBကို လိုအပ်သလို structure ကို ပြင်ဆင်တယ်။ information ကို ပြင်လို့ရင်တောင် overall contents တူညီနေတုန်းဘဲ

Restructuring - example

- SNC Table

Sid	SNAME	CITY
S1	Smith	London
S2	Jones	Paris
S3	Blake	Paris
S4	Clark	London
S5	Adams	Athens

ST Table

Sid	STATUS
S1	20
S2	10
S3	30
S4	20
S5	30

Restructuring- example

- S View Table
-

Sid	SNAME	STATUS	CITY
S1	Smith	20	London
S2	Jones	10	Paris
S3	Blake	30	Paris
S4	Clark	20	London
S5	Adams	30	Athens

What are views for?

View name စိတ်ကြိုက်ပေးနိုင်တယ်။
Base မှာလုပ်လို့ရရင် view မှာလည်းရတယ်။
View မှာလုပ်တာနဲ့ base မှာ လုပ်တာ မကွာဘူး။

- **Two Important Principles**
  - A user who actually defines a view V is, obviously, aware of the corresponding view-defining expression X, that user can use the name V wherever the expression X is intended, but (as we have already seen) such uses are basically just shorthand.
  - A user who is merely informed that view V exists and is available for use, on the other hand, is typically not aware of the view-defining expression X, to that user, in fact, view V should look and behave exactly like a base relvar.

Thanks !