

Denormalization for Less Redundancy

However the relational schema we developed earlier is in 3NF and BCNF, we still have redundancy.

In case of:

- Insertions
- Updatations
- Deletions

This is because one such relation College_Profile sharing a 1-1 relation with College_Details is unnecessary independently. Instead, we can have a merged relation as follows

- College_Profile (All attributes in College_Profile and College_Details)
- The PK of this relation will be College_ID as it is the only unique identifier.

On similar note Student_Profile and Student_Login can be merged as:

- Student_Profile(All Attributes of Student_Profile and Student_Login)
- The PK of this relation will be Student_ID.

Also Admin_Profile and Admin_Login can be merged as :

- Admin_Profile(All Attributes of Admin_Profile and Admin_Login)
- The PK of this relation will be Admin_ID clearly.

Finally we have a relational schema with minimum redundancy.

This is an example where denormalization leads to better efficiency.

****Next page is the updated Relational schema along with the FD's** (Schema II)**