

## Redundant Data

- If a database schema is not well designed, some data could needlessly be replicated

## Revisiting Tables (also called relations)

- Each table should represent one entity or relationships between entities
- In a table representing entities each record should have a unique key
  - Usually an integer
  - Referred to as the primary key

- The primary key attribute has the constraint that every record has a unique value
- RDBMSs can automatically generate new primary keys when a record is inserted
- Relationships
  - Tables are linked when an attribute from one table references a primary key from another table
  - The constraint on such an attribute is that any value for that attribute must exist in the table it references

- foreign key constraint

- Avoid duplicate pairs or larger tuples using the UNIQUE constraint