Relational Model

relation	two dimensional table arranged in rows & columns
relational database	collection of relations
PRIMARY KEY	unique identifier of each row

Database Purposes

• Humans record information • Individual internal memory is limited • External memory extends internal memory

Components of Database

storage medium: paper / electronic
data structures: labelled spaces
data organization: interface organized for rapid data entry & retrieval

Organizational Database Management

• Like people needs to remember a lot of things	• Information usually scattered around org like puzzles
• Deciding where and how to store data requires trade-off	• Uses a variety of IS
• Components:	people, text, multimedia, model, knowledge

Foreign Key

• Purpose: enforce referential integrity
• For every value of foreign key, there is a primary key with that value
-> Primary key must exist before foreign key can be defined
• Primary and Foreign Key can be the same or different

VIEW

• don't require extra storage

• subset the data contained in a table

• join and simplify tables in a single virtual table

• act as aggregate tables, where aggregated data (sum, average etc.) are calculated and presented as part of data

• hide the complexity of database

• provide extra security from unauthorizes users and illegal access

• 1+ source tables make up a VIEW • read-only

• is a virtual dynamic computed from data in the database

• is NOT a part of the relational schema