



Relational Database Review

Topics You Should Already Know



Components

- **Users** : Users may be of various type such as DB administrator, System developer and End users.
- **Database application** : Database application may be Personal, Departmental, Enterprise and Internal
- **DBMS** : Software that allow users to define, create and manages database access, Ex: MySql, Oracle etc.
- **Database** : Collection of logical data.



Organization

Databases are organized into tables.

Each column represents a field, possibly in an object.

Each row is the data in those fields.

| First Name | Last Name | Address | City | Age |
|------------|-----------|---------------------|----------|-----|
| Mickey | Mouse | 123 Fantasy Way | Anaheim | 73 |
| Bat | Man | 321 Cavern Ave | Gotham | 54 |
| Wonder | Woman | 987 Truth Way | Paradise | 39 |
| Donald | Duck | 555 Quack Street | Mallard | 65 |
| Bugs | Bunny | 567 Carrot Street | Rascal | 58 |
| Wiley | Coyote | 999 Acme Way | Canyon | 61 |
| Cat | Woman | 234 Purrfect Street | Hairball | 32 |
| Tweety | Bird | 543 | Itotltaw | 28 |



Keys

- The Primary Key is the field that identifies that row.
- If multiple fields are used it's called a composite key.
- A field that exists in Table A that is used as a primary key in Table B is called a Foreign Key.



SQL

Structure Query Language(SQL) is a programming language used for storing and managing data in DBMS. Today almost all RDBMS(MySql, Oracle, Infomix, Sybase, MS Access) uses SQL as the standard database language. SQL is used to perform all type of data operations in RDBMS.



Creating Databases and Tables

- **Create**
- **Drop**
- **Alter**



Inserting Data

- Insert
- Update
- Delete



Where Clause

Use Where to specify specific records to alter or delete.

Also use it in selecting data



Data Control

- Select
- Like
- Order By
- Group By
- Where
- Join



Resources

- <http://www.tutorialspoint.com/sql/sql-rdbms-concepts.htm>
- <http://dev.mysql.com/doc/refman/5.7/en/>
- <http://cse.unl.edu/~sscott/ShowFiles/SQL/CheatSheet/SQLCheatSheet.html>