**Some of The Most Important SQL Commands**

* **SELECT** - extracts data from a database
* **UPDATE** - updates data in a database
* **DELETE** - deletes data from a database
* **INSERT INTO** - inserts new data into a database
* **CREATE DATABASE** - creates a new database
* **ALTER DATABASE** - modifies a database
* **CREATE TABLE** - creates a new table
* **ALTER TABLE** - modifies a table
* **DROP TABLE** - deletes a table
* **CREATE INDEX** - creates an index (search key)
* **DROP INDEX** - deletes an index

**constraints:**

* **NOT NULL** - Indicates that a column cannot store NULL value
* **UNIQUE** - Ensures that each row for a column must have a unique value
* **PRIMARY KEY** - A combination of a NOT NULL and UNIQUE. Ensures that a column (or combination of two or more columns) have a unique identity which helps to find a particular record in a table more easily and quickly
* **FOREIGN KEY** - Ensure the referential integrity of the data in one table to match values in another table
* **CHECK** - Ensures that the value in a column meets a specific condition
* **DEFAULT** - Specifies a default value for a column

### http://rdbms.opengrass.net/2_Database%20Design/2.1_TermsOfReference/r/keyForeign.gif

Table: Course

Table: Student

### SQL CREATE TABLE Syntax

CREATE TABLE table\_name  
(  
column\_name1 data\_type(size),  
column\_name2 data\_type(size),  
column\_name3 data\_type(size),  
....  
);

### SQL INSERT INTO Syntax

INSERT INTO table\_name  
VALUES (value1,value2,value3,...);

### SQL UPDATE Syntax

UPDATE table\_name  
SET column1=value1,column2=value2,...  
WHERE some\_column=some\_value;

### SQL DELETE Syntax

DELETE FROM table\_name  
WHERE some\_column=some\_value;

## The ALTER TABLE Statement

The **ALTER TABLE** statement is used to add, delete, or modify columns in an existing table.

## Authorization Specification in SQL

**First of all create user:**

CREATE USER user\_name@hostname IDENTIFIED BY ‘password’

DROP USER user\_name@localhost;

SELECT \* FROM mysql.user;

**Privilege in SQL: Select, insert, update, delete, references, all**

grant <privilege list> on <relation name or view name> to <user/ role list>

revoke <privilege list> on <relation name or view name> from <user/role list>

**Flush PRIVILEGES**

FLUSH PRIVILEGES command can be used before and after adding new users. This command simply reloads the grant tables in your MySQL database by enabling the changes to take effect without stopping and restarting MySQL.

* + **FLUSH PRIVILEGES;**

**WITH GRANT OPTION:**

This would allow the user 'newuser' to give others privileges to

GRANT PRIVILEGES ON dbname.table\_name TO user\_name@localhost WITH GRANT OPTION;

**Delete User:**

DROP USER user\_name@localhost;

**Database deletes:**

DROP DATABASE dbname;



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