# Creating Databases

DDL: Create Statement:

Tables are created using the CREATE TABLE command, it makes the table known to the system, it gives the new table a name and defines its columns.

A column is defined by:

- A name

- A data type

- A flag which indicates whether or not the column can accommodate NULL values

A table name must be system wide unique. Some systems solve this problem by concatenating the name of the table with the name of the user who created the table, separating them with a dot. This is known as qualified tables names. Generally, the system knows which user is submitting a request so the short name without the qualifier is often sufficient.

Example:

Create a table representing an Airport with five attributes:

- An airport code (max three characters)

- An airport name (20 chars)

- Location (20 chars)

- Country (20 chars)

- Time difference (number representing diff from GMT, default value of 0)

SQL Code:

CREATE TABLE airport (id CHAR(3) NOT NULL, location VARCHAR2(20) NOT NULL, country VARCHAR2(20) NOT NULL, time\_difference NUMBER(2) DEFAULT 0 NOT NULL, PRIMARY KEY(id));

Table Constraints:

The constraints can basically be seen as the control the database has over the data added to table within the database.

DDL: Alter and Drop Statements:

It is possible to change the format of a table using the ALTER TABLE statement.

Example:

Suppose we have a table S, which has S# defined as 4 characters long, and part\_description

defined as 20 characters long. S(S#, part\_description).

ALTER TABLE S MODIFY S#(6);

* This will make S# 6 characters instead of 4

MODIFY S#(6) NULL;

* This will permit null values

ALTER TABLE S ADD (supplier DATE);

* This will add a new column

DROP TABLE Airport

* This will remove the table Airport from the database