SQL Course

The Where Clause

- Demonstrate how to select only certain rows from a table using the **SELECT** statement.
- Illustrate the use of the **WHERE** clause with a simple example.

In a real world environment queries which retrieve all rows of a table are rarely any use. Invariably these queries lead to redundant information being retrieved. Most often a user will only want to retrieve some of the rows from a table and include those rows in the query results. The user may do this by using the **WHERE** clause.

The **WHERE** clause consists of the keyword **WHERE** followed by a search condition that specifies the rows to be retrieved. An in depth coverage of search conditions is available in the *Search Conditions* module.

Conceptually SQL goes through each row of the table one by one and applies the search condition to each row. If the search condition evaluates to be **TRUE** then the row is included in the query results, if the search condition is **FALSE** then the row is excluded and if the search condition has a **NULL** unknown value then the row is excluded from the query results.

This section shows how the SQL **SELECT** can be used to implement the relational algebra select operator. Note that the relational algebra select operator is sometimes called **RESTRICT**.

A select statement can have the form :

> **SELECT** *select_list* **FROM** *table_name* **WHERE** *search_condition* **AND** | **OR** *search_condition*;

- The **WHERE** clause restricts which rows are displayed by the **SELECT** statement.
- There is a wide range of search conditions to restrict the rows which are chosen.

The following example displays all the aircraft details that have club class accommodation of 22 :

> **SELECT** * **FROM** *aircraft* **WHERE** *no_club_seats* **=** *22*;

aircraft name	model	club seats	econ seats	call sign
Eagle Flyer	ATR42	22	40	N410C
(NULL)	Boeing 707-320C	50	102	9J-AEB
(NULL)	Boeing 727-200	34	100	N7255U
Finians Dream	Boeing 737-200	22	96	DQ-FDM
(NULL)	Boeing 737-200	8	120	N301SW

Table returned from this selection -

aircraft name	model	club seats	econ seats	call sign
Eagle Flyer	ATR42	22	40	N410C
Finians Dream	Boeing 737-200	22	96	DQ-FDM