**Table joins**

Here are two examples of the SQL required to do a join between database tables.

Two table join

Firstly you can join tables when each table has a field in common. For instance, the AE\_events table has a catID and the separate AE\_category table also has catID together with a catDesc (category description).

Now we may want to query both of the AE\_events and AE\_category tables to display details of each event, including the category description rather than the catID. To do that we could use SQL like the following which would join the two tables on the common field, catID, and get the category description from the AE\_category table to go with the catID of the EVENTS details retrieved from the AE\_events table.

SELECT eventTitle, catDesc, eventStartDate, eventEndDate, eventPrice

FROM AE\_events

INNER JOIN AE\_category

ON AE\_category.catID = AE\_events.catID

ORDER BY eventTitle

Obviously you could add a WHERE clause after the 'ON' line if you wanted to filter the query results on some criteria (say as part of a search function). You could also choose to order the query results by adding appropriate SQL.

Three table join

Let’s now say we want to query the AE\_events, AE\_category and AE\_venue tables to display details of each event, including the category description rather than the catID and the venue name rather than the venueID. To do that we could use SQL like the following. It would:

* join the three tables on the common fields
* get the category description from the AE\_category table to go with the catID of the event details retrieved from the AE\_events table
* get the venue name from the AE\_venue table to go with the venueID of the event details retrieved from the AE\_events table.

SELECT eventTitle, catDesc, venueName, eventStartDate, eventEndDate, eventPrice

FROM AE\_events

INNER JOIN AE\_category

ON AE\_category.catID = AE\_events.catID

INNER JOIN AE\_venue

ON AE\_venue.venueID = AE\_events. venueID

ORDER BY eventTitle

Again we could add a WHERE clause after the last ‘ON’ line and order the query results if required.