

## Module Summary: Using SQL in SAS

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### Using Structured Query Language (SQL) in SAS

- PROC SQL creates a report by default.
- The SELECT statement describes the query. List columns to include in the results after SELECT, separated by commas.
- The FROM clause lists the input table(s).
- The ORDER BY clause arranges rows based on the columns listed. The default order is ascending. Use DESC after a column name to reverse the sort sequence.
- PROC SQL ends with a QUIT statement.

```
PROC SQL;  
SELECT col-name, col-name  
FROM input-table;  
QUIT;
```

- Subsetting data:

```
WHERE expression
```

- Sorting data:

```
ORDER BY col-name <DESC>
```

- Creating output data:

```
CREATE TABLE table-name AS
```

- Deleting data:

```
DROP TABLE table-name;
```

### Joining Tables Using SQL in SAS

- An SQL inner join combines matching rows between two tables.
- The two tables to be joined are listed in the FROM clause.

```
FROM from table1 INNER JOIN table2  
ON table1.column = table2.column
```

- Assign an alias (or nickname) to a table in the FROM clause by adding the keyword AS and the alias of your choice. Then you can use the alias in place of the full table name to qualify columns in the other clauses of a query. Although the AS keyword is not required, it can make the code easier to understand.

```
FROM table1 AS alias1, table2 AS alias2
```