

GLOSSARY

1NF. Normal form specifying that all fields must contain single values only.

2NF. Normal form specifying that part of the primary key may not determine a non-key field all by itself.

3NF. Normal form specifying that a non-key field may not determine another non-key field.

4NF. Normal form specifying that, in an all-key table, part of the key may determine multiple values of, at most, one other field.

AccessDataSource. Server control used when you are linking to an Access database.

Active Server Page (ASP). A Web page that includes programming code to dynamically construct the content of the Web page on the fly, in response to user inputs and events related to the page.

Aggregate functions. Built-in functions (Sum, Avg, etc.) that can be calculated for groups (aggregations) of rows, rather than single rows.

AND logical operator. Operator used in a where clause that allows you to combine two conditions where rows must meet both conditions to be selected.

ASP.NET. The Microsoft development environment that allows you to quickly develop Web applications.

Associative table. (1) A new table created to implement a many-to-many relationship. It literally associates records between its two parent tables. (2) A child of two parent tables that are in a many-to-many relationship.

Attribute. A property of an entity or a relationship. For example, employee id is an attribute of the employee entity. Attributes are represented by ellipses.

Base tables. The core set of tables in a database.

BCNF. Normal form specifying that every determinant is a key.

Between operator. Lets you choose rows based on a range of values.

Business logic. Rules that govern an organization's processes.

Cardinality. The technical term used to describe the number of records in the relationship.

Cartesian product. A temporary "table" that combines all rows in one table with all rows in another table.

Check constraint. A setting for a column where you can specify a condition that data values must conform to when being inserted into the column.

Client/server architecture. A computing arrangement where tasks are divided between clients, which handle presentation (interface) tasks and make requests from servers, which then respond to those requests.

Commit. Structured query language statement used to save all the changes made during the current session.

Common Tasks. Give you quick access to the tasks that typically need to be done to set up a server control.

Conceptual model. A generic description of the data that is not tied to any specific database software product.

Create table. Structured query language statement used to create a table.

Data connection. A link between the ASP.NET application and the database that tells ASP.NET where the database is located.

Data item. A single piece of data.

Data source. Basically, a query that operates over a connection to retrieve data from the database.

- Data type.** The kind of information that may be stored in an attribute.
- Database.** An organized collection of data.
- Database administrator (DBA).** The person who runs the database.
- Database diagram.** View of a database where you can display database tables and create relationships between foreign and primary keys.
- Database management system.** Collection of programs that help store, manage, and use the collections of data.
- Database window.** (1) Interface in Access in which all the components of a database (tables, queries, forms, reports, etc.) can be created and displayed. (2) Displays the various components of an SQL Server database, and provides options for creating additional components.
- Datasheet view.** A view of a table in which data can be entered, changed, and displayed.
- Default.aspx.** File for the user interface component of the application.
- Default.aspx.vb.** File for any Visual Basic programming code that you create for the application.
- Dependent table (weak entity).** A child table that requires a parent table for identification.
- Describe table.** Command used to display the column and field names for an existing database.
- Design view.** (1) Provides an interface that greatly simplifies the design process, particularly with respect to adding server controls and formatting the Web page. (2) Interface in Access where you can visually construct the design for a query rather than writing an SQL statement.
- DetailsView.** A control similar to a GridView in that it can be used to display rows from a database. The main difference is that a DetailsView control displays a single row whereas a GridView control displays multiple rows.
- Determinant.** A field, or group of fields, that determines the value of another field.
- Disjoint rule.** This term simply means that an instance of the supertype may belong to *at most* one subtype category.
- Distinct.** Option that tells SQL that you want to display each value only once.
- Domain.** A set of values.
- Drop table.** Structured query language statement used to remove a table from the database.
- Enterprise Manager.** Program in SQL Server used to carry out database administration tasks, including creating databases, indexes, and other database objects.
- Entity.** (1) A person, place, or thing that is being modeled. For example, employees and work locations are both entities. Entities are represented by rectangles. (2) Something about which we want to store data.
- Entity integrity.** Requires that the designer specify a primary key at the time that the table is created.
- Entity relationship diagram (ERD).** A diagram containing entities, relationships, and cardinality constraints.
- Equi-join (or inner joins).** Matching rows between tables based on equality between primary and foreign key values.
- Expression Builder.** An Access component where a validation rule can be specified.
- Field.** A single piece of data.
- First normal form (1NF).** A table in which each field in that table contains single values only.
- Foreign keys.** Duplicate primary key fields that link the related records between parent and child tables.
- Generalization/specialization (Supertype/subtype) hierarchy.** A structure that consists of a general entity that includes all common attributes along with specialized entities that have the attributes common only to certain instances of the entity.
- GridView.** A server control that can be used to display data in the form of a table.

- Group by.** Select statement clause that groups rows based on values in a column.
- Having clause.** Used to select particular groups (aggregations), rather than single rows, based on a condition.
- IN operator.** Allows you to select rows based on multiple values for a particular column. Similar to a series of OR conditions.
- Inheritance.** This term means that any instance of a subtype entity inherits all properties of the supertype, including its attributes and any relationships in which the supertype is involved.
- Inner subquery.** Part of the subquery that always executes first, and then the results of this query are used as input to the outer query.
- Insert.** Structured query language statement used add a row of data to a table.
- Intellisense.** An editor feature that monitors what you type and tries to give you options that relate to the objects you are referencing in the statement.
- Joining.** Relational database operation that combines data from two tables.
- Key.** A field or set of fields that uniquely identifies a record.
- LIKE operator.** Operator used in a where clause that allows you to choose rows that share some common characters but are not exactly the same.
- Many-to-many relationship.** Rows in one table are associated with many rows in the second table, and a row in the second table is associated with many rows in the first table.
- Multivalued dependency.** Multivalued dependencies exist only in all-key tables. For one subset of the key, there are multiple instances of another subset of the key. For example, one employee (identified by employee id) may speak multiple languages.
- Normal form.** Normal forms are rules that allow designers to check for and eliminate data redundancy.
- NOT operator.** Operator used in a where clause that allows you to reverse the condition.
- One-to-many relationship.** A row in one table is matched to multiple rows in the second table, and a row in the second table is matched back to one row in the first table.
- OR logical operator.** Operator used in a where clause that allows you to combine two conditions where rows can meet either condition to be selected.
- Order by.** SQL clause for a Select statement used to sort results.
- Outer query.** Query containing the inner query and using the results of that inner query as input.
- Overlap rule.** This term means that a supertype instance may belong to more than one subtype category.
- Partial specialization.** When there are some instances of the supertype that do not belong in any of the subtype categories.
- Primary key.** (1) A field or group of fields whose values uniquely identify each record in a table. (2) The key used to uniquely identify a record in a table.
- Primary key button.** Toolbar button that can be used to indicate that a column should be treated as a primary key for the table.
- Projection.** Relational database operation that retrieves a subset of columns.
- Query.** (1) An SQL Select statement, (2) A component of an Access database that is used to display data.
- Query Analyzer.** Component in SQL Server used to process queries to retrieve data from tables.
- Record.** A collection of related data items that are specific to an instance of an entity.
- Recursive relationship.** Relationship that associates two instances of the same entity (also known as unary relationship).
- Referential integrity.** Requires that foreign key values must match existing primary key values in the table to which they refer.
- Relational database.** A database that organizes data into overlapping tables.

- Relational database management system (RDBMS).** A software application used to implement a relational database.
- Relationship.** A logical connection between records from two or more tables. All relationships can be categorized as one-to-one, one-to-many, or many-to-many.
- Relationship view.** View of a database where you can display database tables and create relationships between foreign and primary keys.
- Reserved words.** Words that cannot be used to name database elements such as tables and columns.
- Rollback.** Structured query language command used to undo changes made since the last commit.
- Script.** A series of SQL commands that can be saved and executed in iSQL*Plus.
- Select.** SQL statement that is used to implement all three relational database operations.
- Select * from table.** Select is the SQL command used to display data in a database. The * option indicates that all fields should be displayed.
- Select table_name from user_tables.** Structured query language command used to show all the tables you have created using your Oracle account.
- Selection.** Relational database operation that retrieves a subset of rows.
- Server controls.** Dynamic versions of typical HTML components, including textboxes, tables, bullet lists, radio buttons, and list boxes, as well as unique controls that provide additional functionality far beyond that possible with simple HTML tags. These controls handle functions such as validation, data access, login processing, and navigation.
- Set echo on.** Turns on the display of all information processed in the script when it is executed.
- Source view.** Provides an interface for writing HTML statements to design an Active Server page.
- SQL (structured query language).** A standard language for creating and using databases.
- SQL view.** Interface in Access where the SQL statement generated for the query design is displayed.
- SqlDataSource.** Server control used for either SQL Server or Oracle databases.
- Subqueries.** Queries contained inside other queries.
- Subtype entity.** Specialized entities that have the attributes common only to certain instances of the entity in a supertype/subtype hierarchy.
- Supertype entity.** The general entity that includes all common attributes in a supertype/subtype hierarchy.
- Three-tier architecture.** A computing architecture that consists of clients; application servers, which enable business logic; and data servers, which provide data to the application servers.
- Total specialization.** When all instances of the supertype must belong to at least one subtype category.
- Tree pane.** Area that shows the structure of your SQL Server environment.
- Validation rule.** A setting for a column where you can specify a condition that data values must conform to when being inserted into the column.
- View.** A subset derived from the base tables. Views enable the DBA to restrict the portion of the database visible to each user.
- Web Developer.** A complex development environment that includes a variety of powerful tools to create a wide range of Web application projects.
- Web Form.** An HTML document that includes basic static HTML tags and server controls.
- Web site.** Basically, a directory in which all the files associated with the Web application are stored.
- Where clause.** SQL clause for a Select statement used to choose particular rows based on a condition.
- Workspace.** The interface in Oracle iSQL*Plus for typing all SQL commands and viewing their results.