

# Microsoft<sup>®</sup> Access<sup>™</sup> Glossary of Terms

*This document describes some of the many terms used in the design of a database using Microsoft Access. It covers terms used in the design of Tables, Relationships, Queries, Forms and Reports.*

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# CONTENTS

- Microsoft® Access™ Glossary of Terms .....1
- Tables: Field Properties.....1
  - \* Some Input Masks .....1
- Relationships .....2
- Queries .....3
- Forms & Reports .....4



# Microsoft® Access™ Glossary of Terms

## TABLES: FIELD PROPERTIES

<b>Field Size</b>	Adjusts the size of a text field, or limits the range of allowable values in a Number Field.
<b>Format</b>	Displays dates and numbers in a certain Display format, such as Long Date format, or Currency Format.
<b>Decimal Places</b>	Displays a certain number of places after the decimal point, for Number Fields only.
<b>Input Mask*</b>	Restricts the entry of data to a specific pattern. Can also convert text to Upper or Lower Case, and automatically display additional characters.
<b>Caption</b>	Specifies a Field Label other than the field name.
<b>Default Value</b>	Automatically adds a certain value for a field when a new record is added.
<b>Validation Rule</b>	Limits the data entered in a field to values that meet certain criteria.
<b>Validation Text</b>	Displays text as an Alert Box when <b>Validation Rule</b> is not met.
<b>Required</b>	Requires that data is entered in a field i.e. field cannot be left blank (or have a 'Null Value').
<b>Allow Zero Length</b>	Allows a zero length string of text to be stored in a text or memo field. Zero length strings are created by typing "" or <space>.
<b>Index</b>	Speeds up searches on fields that are searched for frequently. All unique fields (no duplicates) such as <b>Primary Key</b> fields must be Index fields.

### \* *Some Input Masks*

0	Digit (entry required).
9	Digit (entry not required).
#	Digit, + or - sign, or space.
L	Letter (entry required).
?	Letter (entry not required).
A	Letter or Digit (entry required).
a	Letter or Digit (entry not required).
&	Any character or space (entry required).
C	Any character or space (entry not required).
. , ; : - /	As typed

<	All characters to the right are converted to Lower Case.
>	All characters to the right are converted to Upper Case.
!	Causes Input Mask to fill from right to left.
\	The character immediately following will be shown as a literal character in the Mask.

## RELATIONSHIPS

<b>Relational database</b>	A database with more than one table, where records in one table are linked, or related, to records in another table.
<b>Foreign Key Field</b>	A field that is added to the related table to link it with <b>the Primary Key Field</b> in the <b>Primary Table</b> . The Foreign Key Field should have the same data properties as the <b>Primary Key</b> .
<b>Junction Table</b>	A table that allows two other tables to be linked in a <b>Many-to-many Relationship</b> . Also called an Intermediate, or Link Table.
<b>Many-to-Many Relationship</b>	A relationship between two tables. Each record in one table may be related to several records in the other table, <i>and vice versa</i> . A Many-to-Many Relationship needs to be set up as two <b>One-to-Many Relationships</b> linked by a <b>Junction Table</b> .
<b>One-to-Many Relationship</b>	A relationship between two tables. Each record in the one table (the <b>Primary Table</b> ) may be related to <i>several</i> records in the other table (the <b>Related Table</b> ), but each record in the Related Table may only be related to <i>one</i> record in the Primary Table.
<b>One-to-One Relationship</b>	Where each record in the first table may only be related to one record in the second table, <i>and vice versa</i> . (Information in tables with One-to-One relationships could be represented in a single table.)
<b>Primary Key(s)</b>	A field (or fields) that uniquely defines each record in a table.
<b>Primary Table</b>	The table that contains the “one” record (in a <b>One-to-Many Relationship</b> ). For referential integrity, a record in this table does not have to be related to any records in the <b>Related Table</b> .
<b>Referential Integrity</b>	Makes sure that you do not add, delete, or edit records in one table without considering the consequences on records in other tables.
<b>Related Table</b>	The table that contains the “many” records record (in a <b>One-to-Many Relationship</b> ). For referential integrity, each record in a related table must be related to a record in the <b>Primary Table</b> .

## QUERIES

<b>Action Query</b>	A Query that selects a subset of records, <i>and then</i> carries out some kind of action ( <b>Make-Table</b> , <b>Delete</b> , <b>Append</b> , <b>Update</b> ) on those records.
<b>Append Query</b>	An <b>Action Query</b> which adds the selected records to the end of an existing table.
<b>Crosstab Query</b>	A Query that summarises the data in the underlying tables, and presents the summarised data in Datasheet view.
<b>Delete Query</b>	An <b>Action Query</b> which deletes the selected records from the underlying tables.
<b>Dynaset</b>	A 'Dynamic Subset': the subset of data created by a Query, which holds dynamic or live data (as opposed to a copy of the data).
<b>Join Properties</b>	Determines exactly what data will be extracted from two tables in a <b>Multitable Query</b> , as described by the <b>Join Type</b> .
<b>Join Type 1: Equi-join</b>	Will only include, in a <b>Multitable Query</b> , data where records in each table are related to records in the other table.
<b>Join Type 2: Left Outer Join</b>	Will include, in a <b>Multitable Query</b> , all records from the <b>Primary Table</b> , whether or not they are related to any records in the <b>Related Table</b> .
<b>Join Type 3: Right Outer Join</b>	Will include, in a <b>Multitable Query</b> , all records from the <b>Related Table</b> , whether or not they are related to any records in the <b>Primary Table</b> .
<b>Make-Table Query</b>	An <b>Action Query</b> which copies the selected records into a new table.
<b>Multitable Query</b>	A Query which includes data from more than one table.
<b>QBE Grid</b>	Allows you to design a Query By Example (as opposed to writing a query in <b>SQL</b> )
<b>Select Query</b>	The basic query that selects a subset of records in one or more tables, using the criteria you specify.
<b>SQL</b>	<b>Structured Query Language</b> . The language that Access uses for querying the database. For the user, queries can be defined either in SQL, or using the <b>QBE Grid</b> ; the results are interchangeable.
<b>Update Query</b>	An <b>Action Query</b> which makes changes to the records selected, in their underlying tables.

## FORMS & REPORTS

<b>Bound Control</b>	A <b>Control</b> which takes its data from a field in the underlying table (e.g. a Field <b>Text Box</b> Control).
<b>Calculated Control</b>	A <b>Control</b> which takes its data from an expression.
<b>Check Box</b>	A <b>Control</b> containing Yes/No type data and displayed as a check box <input type="checkbox"/> . (See also <b>Option Button</b> , <b>Toggle Button</b> ).
<b>Combo Box</b>	A <b>Control</b> that combines the features of a <b>Text Box</b> , and <b>List Box</b> . Values can either be typed in, or selected from a predetermined list. A combo box list is only displayed when you click on its 'down' arrow.
<b>Command Button</b>	A <b>Control</b> that runs a Macro, often displayed as a Command Button.
<b>Compound Control</b>	Two or more <b>Controls</b> that are attached to each other. The most common example of a Compound control is a Field Text Box and its associated Field Label.
<b>Control</b>	The term to describe any item in a form (e.g. field label, text box).
<b>Control Source</b>	The field from which a <b>Bound Control</b> takes its data.
<b>Label</b>	A <b>Control</b> containing text which is the same on all records. A Label Control may or may not be attached to a text box control.
<b>List Box</b>	A <b>Control</b> that displays a list of values, from which you can choose one value. A list box is usually <b>bound</b> to one or more fields in an underlying table. A list box list is always displayed. (See also <b>Combo Box</b> ).
<b>Object</b>	The term to describe the different components of a database (table, query, form etc.); that appear on the 'tabs' of the database window.
<b>Object Frame</b>	A <b>Control</b> that displays a Picture, Graph or other OLE Object. A <i>Bound</i> Object Frame displays an object which is stored in a Microsoft Access table (e.g. photos of students in a student record), whereas an <i>Unbound</i> Object Frame will display an object which is the same on all records (e.g. a logo).
<b>Option Button</b>	A <b>Control</b> containing Yes/No type data, displayed as an Option button <input type="radio"/> (See also <b>Check Box</b> , <b>Toggle Button</b> ).
<b>Section</b>	Sections of a form include Form Header, Detail section, Form Footer.
<b>Text Box</b>	A <b>Control</b> containing data (text or number) from a record.
<b>Toggle Button</b>	A <b>Control</b> containing Yes/No type data and displayed as a toggle button. You 'push down' a toggle button to indicate a 'Yes' . (See also <b>Check Box</b> , <b>Option Button</b> ).
<b>Unbound Control</b>	A <b>Control</b> that does not have a data source (e.g. a <b>Label Control</b> ).