



Microsoft®

Access 2021 Intermediate Quick Reference Guide



Overview of Queries

The queried tables appear here. You can also link tables.

To add a field to the query, click and drag it from the table down to the design grid.

Sort order

Show results

Criteria rows

Design Grid

Query Examples

Expression	Result
"London"	Displays records where the field equals "London."
"London" Or "New York"	Displays records where the field equals "London" or "New York."
Between 1/1/00 And 12/31/00	Displays records where the date is between 1/1/00 and 12/31/00.
Year([Order Date])=2018	Displays records where the OrderDate field equals 2018.
Is Null	Displays records where the field is null.
Is Not Null	Displays records where the field is not null.
Not "USA" Or ""	Displays records where the field does not contain the text "USA" and is not blank.
Like "S*"	Displays records where the field text starts with an "S."
Not Like "S**"	Displays records where the field text does not start with an "S."
>="S"	Displays records where the field text starts with letters "S" through "Z."
>100	Displays records whose field value is greater than 100.
=Sum([Sales])	Displays the sum of the values in the Sales field.
=Avg([Sales])	Displays the average of the values in the Sales field.
=Count([Sales])	Displays the number of records in the Sales field.

Queries

Create a Query: Click the **Create** tab on the ribbon and click the **Query Design** button. Select the table(s) you want to add to the query, click the **Add** button, and close the dialog box. Double-click each field you want to include in the query. Click the **Save** button on the Quick Access Toolbar, type a name for the query, and click **OK**.

Run a Query: Double-click a query in the Navigation Pane.

Hide Fields from Queries: Clear the **Show** check box in the design grid for the field(s) you want to hide.

Sort Fields: Click in the **Sort** field for the field you want to sort, click the list arrow for the field, and select a sort order.

Create a Multiple Table Query: Click the **Create** tab on the ribbon, click the **Query Design** button, double-click the tables you want to add to the query, and click **Close**. Double-click each field you want to include in the query and save the query.

Work with the Expressions Builder: In Design view, click in the **Field** row of a blank column in the design grid, and click the **Builder** button on the Design tab. Select a field to use in the calculation, select an operation for the calculation, click or type any other fields or values you want to use, and click **OK**.

Find Unmatched Records: Click the **Create** tab on the ribbon and click the **Query Wizard** button. Select **Find Unmatched Query Wizard** and click **OK**. Use the wizard to complete the find unmatched query, enter a name for the query in the final step of the wizard, and click **Finish**.

Crosstab Queries: Click the **Create** tab on the ribbon and click the **Query Wizard** button. Select **Crosstab Query Wizard** and click **OK**. Use the wizard to complete the crosstab query, enter a name for the query in the final step of the wizard, and click **Finish**.

Create a Delete Query: Click the **Create** tab on the ribbon and click the **Query Design** button. Select the tables and queries you want to add, click **Add**, and close the dialog box. Connect any unrelated tables and click the **Delete** button on the Design tab. Double-click the **asterisk (*)** in the table field list for the table containing information you want to delete. Drag the field you want to use as the limiting criteria onto the design grid. Then, click in the field's **Criteria** row and type the specific data you want to delete.

Create an Append Query: Click the **Create** tab on the ribbon and click the **Query Design** button. Select the tables and queries you want to add, click **Add**, and close the dialog box. Click the **Append** button on the Design tab, specify the append settings, and click **OK**. Double-click any of the fields you want to append.

Relational Databases

Database Types: There are two basic types of databases.

- **Flat File Database:** Stores all of its information in the same place, such as a single table or list.
- **Relational Database:** Stores information in multiple tables that are related through matching fields. Access is a relational database.

Relationship Types: There are three different types of relationships used when linking tables together.

- **One to One:** Each record in a table relates to one record in another table.
- **One to Many:** Each record in a table relates to one or more records in another table.
- **Many to Many:** One or more records in a table relate to one or more records in another table.

Create Relationship Between Tables: Click the **Database Tools** tab on the ribbon and click the **Relationships** button. Click the **Show Table** button on the Design tab, double-click the table(s) you want to add, and close the dialog box. Click the related field in the first table and drag it to the related field in the second table, select the **Enforce Referential Integrity** check box (optional), and click **Create**.

Print the Relationship Window: Click the **Database Tools** tab on the ribbon, click the **Relationships** button, and click the **Relationships Report** button on the Design tab. Click the **Print** button on the Print Preview tab, select the desired print settings, and click **OK**.

Forms

Create a Form with AutoForm: In the Navigation Pane, click the table or query that contains the data you want the new form to use, click the **Create** tab on the ribbon, and click the **Form** button.

Create a Form with the Form Wizard: Click the **Create** tab on the ribbon and click the **Form Wizard** button. Click the **Tables/Queries** list arrow and select the table or query you want to use to create your form. Under Available Fields, double-click the fields you want to appear in the form. Use the wizard to complete the form setup, enter a name for the form in the final step of the wizard, and click **Finish**.

Change Form Views: Click the **View** list arrow on the Home tab and select a view.

Move a Control: Click the control and drag it to a new location on the form.

Delete a Control: Select the control you want to delete, press the **Delete** key or click the **Delete** button on the Home tab.

Forms

Add a Field: Click the **Add Existing Fields** button on the Design tab and double-click the fields you want to add in the Field List pane at the right.

Add a Control to a Form: In Design view, click the control button you want to add in the Controls group of the Design tab. Click a spot on the form to place the control. If the control you added opens a wizard, navigate through it and specify the desired settings.

Work with Control Properties: In Design view, select the control you want to edit and click the **Property Sheet** button on the Design tab. Click the appropriate property field in the Property Sheet pane and make the necessary changes.

Change a Control's Data Source: Display the form in Design view or Layout view with the Property Sheet displayed. Select the desired control, click the **Data** tab in the Property Sheet pane, click in the Control Source field, and edit the source as desired.

Create a Subform: In Design view, resize the form to make room for the subform. Click the **Controls** button on the Design tab and click the **Subform/Subreport** button. Click and drag where you want the subform to appear. Use the wizard to complete the subform setup, enter a name for the subform in the final step of the wizard, and click **Finish**.

Reports

Create and Save a Report: Select the table or query you want to base the report on in the Navigation Pane, click the **Create** tab on the ribbon, and click the **Report** button. Click the **Save** button on the Quick Access Toolbar, give the report a name, and click **OK**.

Create a Report with the Report Wizard: Click the **Create** tab on the ribbon and click the **Report Wizard** button. Click the **Tables/Queries** list arrow and select the table or query you want to use to create your report. Under Available Fields, double-click the fields you want to appear in the report. Use the wizard to complete the report setup, enter a name for the report in the final step of the wizard, and click **Finish**.

Use the Label Wizard: Open the table or query that contains the data for your labels. Click the **Create** tab on the ribbon and click the **Labels** button. Use the wizard to complete the label setup, enter a name for the report in the final step of the wizard, and click **Finish**.

Work with Report Layouts: Open the report in Layout view, click the **Arrange** tab on the ribbon, and click a command in the Position group.

Move a Column: Click and drag a column's heading to a new location to move a column, or simply click and drag a control to a new location.

Reports

Delete a Column: Select a column or control and press the **Delete** key.

Insert a Logo: In Layout view, click the **Design** tab on the ribbon, and click the **Logo** button. Locate the file, select it, and click **OK**.

Adjust Page Margins: In Layout view or Design view, click the **Page Setup** tab on the ribbon, click the **Margins** button, and select a margin option.

Adjust Page Orientation: In Layout view or Design view, click the **Page Setup** tab on the ribbon and click the **Landscape** or **Portrait** button.

Advanced Topics

Import Data: Click the **External Data** tab on the ribbon and click the **New Data Source** button. Select the type of data you want to import and select the file type. Browse for the file you want to import and click **OK**. Complete the steps in the import dialog box.

Export Access Objects: Select the database object you want to export in the Navigation Pane. Click the **External Data** tab and click the button for the type of file to which you want to export in the Export group. Select the desired export options and click **OK**.

Save a Database to Other Formats: Click the **File** tab on the ribbon and select **Save As**. Select the file format to which you want to save your database and click the **Save As** button. Enter a name for the database in the File name field and click **Save**.

Apply Conditional Formatting: In Design view or Layout view, click the field you want to format. Click the **Format** tab on the ribbon and click the **Conditional Formatting** button. Click **New Rule**, select a rule type, and specify the rule details. Click **OK**, then click **OK** again to save the rule.

Compact and Repair a Database: Click the **Database Tools** tab on the ribbon and click the **Compact and Repair Database** button.

Password Protect a Database: Click the **File** tab on the ribbon and click the **Encrypt with Password** button in the Info section. Type a password in the Password field, enter it again in the Verify field, and click **OK**.

Back Up a Database: Open the database that you want to back up. Click the **File** tab on the ribbon and select **Save As**. Select **Back Up Database** and click the **Save As** button. Specify the save location and type a name for the file, then click **Save**.

Restore a Database: Open File Explorer and navigate to the location of the last known backup of the database. Copy the database backup file. Navigate to the location of the damaged or missing database and paste the database backup file.