

Access Basics 3: Working with Multiple Tables



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1.0 hours

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Class Evaluation: https://ufl.qualtrics.com/jfe/form/SV_1Ojkl6IRsKV3XT

Class Exercise

Open the Database

1. Open the Microsoft Access file Access Basics 3
 - If needed, download the class files from: <https://training.health.ufl.edu/zoom/access/>

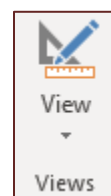
View the Patients Table

1. Double-click on the Patients table in the Navigation Pane.
 - If necessary, click on the words Navigation Pane on the left side of the window.

Pt Med Rec #	Pt First Name	Pt Last Name	Pt Address	Pt City	Pt State	Pt Zip Code
123-456	Sam	Franks	123 Main Street	Gainesville	FL	32601
255-913	Annie	Adams	6831 NW 4th Ave	Gainesville	FL	32655
280-653	Frank	Finch	409 SW 92nd Avenue	Jacksonville	FL	32653
308-726	Debbie	Dawson	832 Hook Place	Gainesville	FL	32567
343-727	Bobbie	Brown	234 Peter Pan Terrace	Gainesville	FL	32597
402-812	Butch	Bruce	3243 SE 4th Terrace	Gainesville	FL	32597
436-889	Edgar	Edwards	5233 NW 232nd Drive	Gainesville	FL	32667
527-594	Doris	Jones	PO Box 555	Gainesville	FL	32614
532-288	Carly	Carlson	1943 NW Main Street	Gainesville	FL	32608
555-555	Jane	Williams	789 W University Blvd	Jacksonville	FL	32211
565-764	Cathy	Cappers	RR 2 Box 659	Waldo	FL	32689
747-370	Emily	Ellis	PO Box 5544	Gainesville	FL	32658

2. Switch to the Design View

- Right-click on the table name in the Navigation Pane
- Or right-click on the table name in the tab
- Or use the Design view button in the ribbon

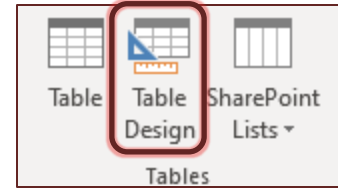


Field Name	Data Type	Description (Optional)
Pt Med Rec #	Short Text	Patient's Medical Record Number
Pt First Name	Short Text	
Pt Last Name	Short Text	
Pt Address	Short Text	
Pt City	Short Text	
Pt State	Short Text	
Pt Zip Code	Short Text	
Pt Social Sec #	Short Text	
Pt Primary Doctor	Short Text	
Pt Date of Birth	Date/Time	
Pt Gender	Short Text	
Pt Eye Color	Short Text	
Pt Primary Phone #	Short Text	

3. Close the table (do not save if asked)

Create Appointments Table

1. From the Create Tab choose **Table Design**
2. Create the Table as shown here
3. Set Appt ID # to be the **Primary Key**



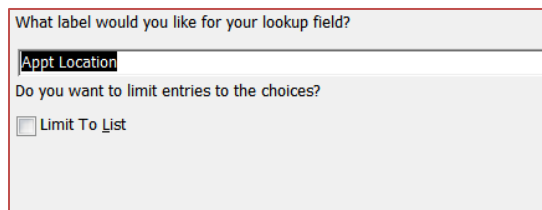
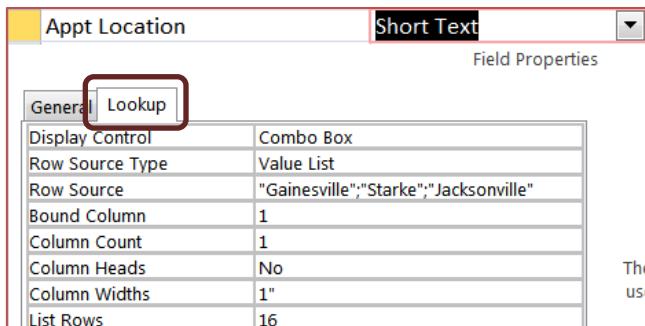
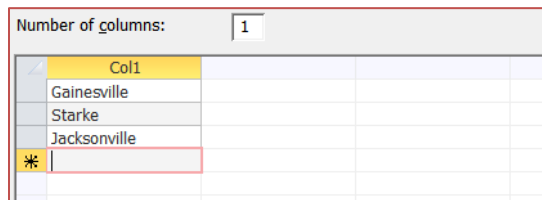
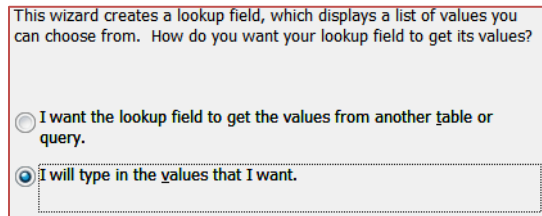
- Click in the Appt ID # field and click the Primary Key button in the ribbon
- Or right-click inside the field and choose Primary Key

	Field Name	Data Type
PK	Appt ID #	AutoNumber
	Pt Med Rec #	Short Text
	Appt Doctor	Short Text
	Appt Date	Date/Time
	Appt Time	Date/Time
	Appt Reason	Short Text
	Appt Type First Appt	Yes/No
	Appt Type Follow-up	Yes/No
	Appt Type Emergency	Yes/No
	Appt Location	Short Text

4. Save the table as **Appointments**

Create Lookup Location

1. Change the Data Type for Appt Location to be **Lookup Wizard**
 - Step 1 – *I will type in the values I want*
 - Next Step 2 – Type under the Col 1
 - Gainesville, Starke, Jacksonville
 - Next Step 3 – **Appt Location**
 - *Finish*
2. Appt Location field type still says SHORT TEXT
 - View Lookup tab in the properties at the bottom of the window

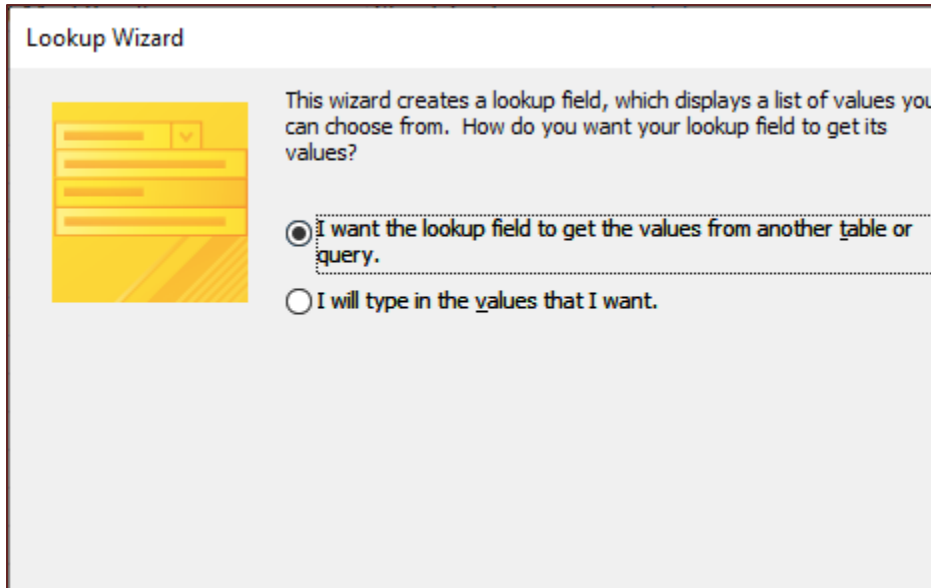


Create Lookup Pt Med Rec #

Make sure the Patients Table is closed!

1. Change the Data Type for Pt Med Rec to be LOOKUP WIZARD
 - a. Step 1. How do you want your lookup field to get its values?

I want the lookup column to look up the values in a Table or Query



Lookup Wizard

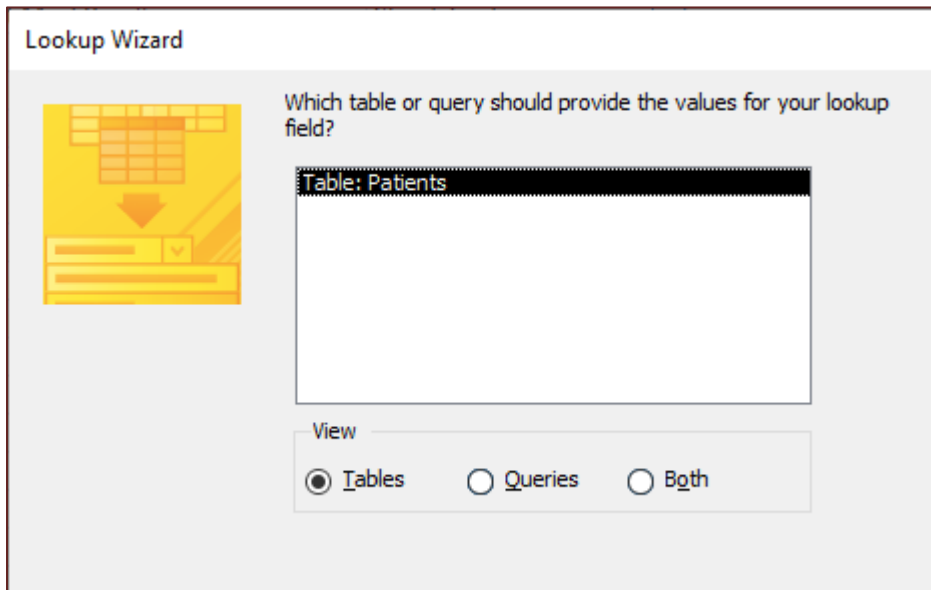
This wizard creates a lookup field, which displays a list of values you can choose from. How do you want your lookup field to get its values?

I want the lookup field to get the values from another table or query.

I will type in the values that I want.

- b. Next Step 2. Which table should provide the values for your lookup field?

Table: Patients



Lookup Wizard

Which table or query should provide the values for your lookup field?

Table: Patients

View

Tables Queries Both

- c. Next Step 3. Which fields of the Patients contain the values you want to include in your lookup field?

Pt Med Rec #, Pt Last Name, Pt Birth Date

Lookup Wizard

Which fields of Patients contain the values you want included in your lookup field? The fields you select become columns in your lookup field.

Available Fields:

- Pt First Name
- Pt Address
- Pt City
- Pt State
- Pt Zip Code
- Pt Social Sec #
- Pt Primary Doctor
- Pt Gender

Selected Fields:

- Pt Med Rec #
- Pt Last Name
- Pt Date of Birth

Buttons: Cancel, < Back, Next >, Finish

- d. Next Step 4. What sort order do you want for the items in your list box?

Pt Last Name, Pt Birth Date

Lookup Wizard

What sort order do you want for the items in your list box?
You can sort records by up to four fields, in either ascending or descending order.

1 Pt Last Name Ascending

2 Pt Date of Birth Ascending

3 Ascending

4 Ascending

Buttons: Cancel, < Back, Next >, Finish

e. Next Step 5. How wide would you like your columns? - **UNCHECK** the hide key column

- Most keys are AutoNumbers and it is easier to hide them. Because our Med-Rec is a user-defined key, we would like to see it in this column. We can see multiple columns here in the wizard, and we will when we open the menu, but only the first column will show in the cell of the table.

Lookup Wizard

How wide would you like the columns in your lookup field?

To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

Hide key column (recommended)

Pt Med Rec #	Pt Last Name	Pt Date of Birth		
255-913	Adams	23-May-86		
867-503	Appleton	22-Mar-88		
979-298	Arlington	20-Aug-58		
343-727	Brown	24-Jun-66		
402-812	Bruce	03-Sep-99		
565-764	Cappers	27-Mar-53		
532-288	Carlson	31-Aug-57		

f. Next Step 6. Which column in your lookup field contains the values you want to store in your database? - **Pt Med Rec #**

- Because we chose not to hide the key, Access wants to confirm which field **UNIQUELY IDENTIFIES THE ROW**. If you don't see this window, got back to step five and uncheck the hide key box.

Lookup Wizard

When you select a row in the lookup field, you can store a value from that row in your database, or you can use the value later to perform an action. Choose a field that uniquely identifies the row. Which column in your lookup field contains the value you want to store or use in your database?

Available Fields:

Pt Med Rec #
Pt Last Name
Pt Date of Birth

- g. Next Step 7. What label would you like for your lookup field? – Label the lookup field as **Pt Med Rec #** and check the **Enable Data Integrity** box. Then click **Finish**.

Lookup Wizard

What label would you like for your lookup field?

Pt Med Rec #

Do you want to enable data integrity between these tables?

Enable Data Integrity

Cascade Delete

Restrict Delete

Do you want to store multiple values for this lookup?

Allow Multiple Values

Those are all the answers the wizard needs to create your lookup field.

- h. Click Yes to the warning message "The Table must be saved before the relationships can be created"

Lookup Wizard [Close]

The table must be saved before relationships can be created. Save now?

Yes **No**

Data Integrity

The relationship will still be created if you don't enable the data integrity, but it's a good idea of you want the tables to pay attention to each other.

Action	Enabled the data integrity	No enabled the data integrity
Change a Pt Med Rec # in the Patients Table	Pt Med Rec # changes in the Appointments table to match the changed number	Pt Med Rec # remains unchanged in the Appointments table, and has no matching record in the Patients table
Delete a Record in the Patients Table	Access will either <ul style="list-style-type: none"> • CASCADE DELETE: delete all the matching records in the Appointments table • RESTRICT DELETE: give an error message that you cannot delete because there are related records 	Matching records will remain and now have no matching record in the Patients table.

Add an Appointment in the table

1. In Datasheet, view enter a new record
2. Enter a new record

Pt Med Rec #	Appt Doctor	Appt Date	Appt Time	Appt Reason	Appt Type First	Appt Type Follow-up	Appt Type Emergency	Appt Location
123-456	Jekyll	10/17	2p	Mood Swings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gainesville

Modify Appointments Table

- Change CAPTION property for the Yes/No fields

Appt Type First	Yes/No
Appt Type Follow-up	Yes/No
Appt Type Emergency	Yes/No
Appt Location	Short Text

Field Properties

General		Lookup	
Format	Yes/No		
Caption	First Appt		
Default Value	No		

Field Name	Caption
Appt Type First	First Appt
Appt Type Follow-up	Follow-up
Appt Type Emergency	Emergency

- Change Appt Time FORMAT property to remove the seconds
 - Medium Time – 12-hour clock (AM/PM)
 - Short Time – 24-hour clock (military time)

Appt Time	Date/Time																																																				
<table border="1"> <thead> <tr> <th colspan="2">General</th> <th colspan="2">Lookup</th> </tr> </thead> <tbody> <tr> <td>Format</td> <td>Medium Time</td> <td></td> <td></td> </tr> <tr> <td>Input Mask</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Caption</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Default Value</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Validation Rule</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Validation Text</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Required</td> <td>No</td> <td></td> <td></td> </tr> <tr> <td>Indexed</td> <td>No</td> <td></td> <td></td> </tr> <tr> <td>IME Mode</td> <td>No Control</td> <td></td> <td></td> </tr> <tr> <td>IME Sentence Mode</td> <td>None</td> <td></td> <td></td> </tr> <tr> <td>Text Align</td> <td>General</td> <td></td> <td></td> </tr> <tr> <td>Show Date Picker</td> <td>For dates</td> <td></td> <td></td> </tr> </tbody> </table>		General		Lookup		Format	Medium Time			Input Mask				Caption				Default Value				Validation Rule				Validation Text				Required	No			Indexed	No			IME Mode	No Control			IME Sentence Mode	None			Text Align	General			Show Date Picker	For dates		
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- *Optional: Turn off the Show Date Picker to get rid of the calendar*
- Close and save the table

Create Schedule Query with Multiple Tables

1. Go to the Create Tab and click the **Query Design** button
2. Add both tables and close the Show Table window
3. Double-click on the field names to add them to the query
 - a. Pt Med Rec from APPOINTMENTS
 - b. Pt First Name and Pt Last Name from PATIENTS
 - c. Appt Doctor, Appt Date, Appt Reason from APPOINTMENTS

Field:	Pt Med Rec #	Pt First Name	Pt Last Name	Appt Doctor	Appt Date	Appt Reason
Table:	Appointments	Patients	Patients	Appointments	Appointments	Appointments
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:						
or:						

Add an Appointment to the Query

1. Add a new record in the Datasheet view
 - a. Select the Med Rec for Jones, change to Williams
 - b. Change Jane's Last name from Williams to Jones
 - c. Set the Doctor, Date, Time, and Reason (*like Excel, Access will assume this year*)

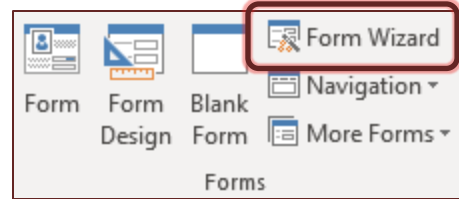
Note: We only see the records that have Appointments

Pt Med Rec	Pt First Name	Pt Last Name	Appt Doctor	Appt Date	Appt Reason
339-852	Janey	Williams	Scholls	8/29	Foot Odor

2. Close and Save Query as **Schedule**

Create Patient Appointment Form

1. Go to the **Create** Tab and click the **Form Wizard**
2. From the Tables/Queries list, choose the Table: Patients
 - Pt Med Rec #
 - Pt First Name
 - Pt Last Name
 - Pt Birthday
 - Pt Eye Color



DO NOT CLICK NEXT

Form Wizard

Which fields do you want on your form?
You can choose from more than one table or query.

Tables/Queries
Table: Patients

Available Fields: Selected Fields:

Pt Address
Pt City
Pt State
Pt Zip Code
Pt Social Sec #
Pt Primary Doctor
Pt Gender
Pt Primary Phone #

Pt Med Rec #
Pt First Name
Pt Last Name
Pt Date of Birth
Pt Eye Color

3. From the Tables/Queries list, choose Table: Appointments
 - Appt Doctor
 - Appt Date
 - Appt Reason

Which fields do you want on your form?
You can choose from more than one table or query.

Tables/Queries
Table: Appointments

Available Fields: Selected Fields:

Appt ID #
Pt Med Rec #
Appt Time
Appt Type First Appt
Appt Type Follow-up
Appt Type Emergency
Appt Location

Pt Med Rec #
Pt First Name
Pt Last Name
Pt Date of Birth
Pt Eye Color
Appt Doctor
Appt Date
Appt Reason

4. Click **FINISH** - We are skipping the rest of the steps

Patients1

Pt Med Rec # 123-456

Pt First Name Sam

Pt Last Name Franks

Pt Date of Birth 01-Jan-01

Pt Eye Color Brown

Appointments

Appt Doctor	Appt Date	Appt Reason
Jekyll	10/17/2020	Mood Swings
*		

Record: 1 of 1 No Filter Search

Record: 1 of 17 No Filter Search

Searching Patient Appointments Form

1. Click in the Pt Med Rec # field
2. Click in the Search box at the bottom of the window
 - Be careful to get the one for the patients at the very bottom of the window
3. Type in **Jones**
4. Press Enter to search again and move to **Jane Jones**
 - If needed, you can use Ctrl-F or the **Find** button in the ribbon
 - Schedule another appointment for this patient
5. Create a new Patient
 - Schedule the new patient for an appointment
6. Close and Save the Form

View the Final Results

1. View each object in the database
 - a. Tables
 - Table **Appointments**
 - View all the new appointments
 - Table **Patients**
 - Look for Jane **Jones** and click on the + in front of her name to view her appointments
 - b. Queries
 - Query **Female Patients**
 - Because we did not include Gender on our form, our new patient will not be on this list, but Jane Williams is now listed as Jane Jones
 - Query **Schedule**
 - Jane Williams is now listed as Jane Jones
 - c. Reports
 - Report **Patients**
 - Jane Williams is now listed as Jane Jones
 - Report Patients by **Eye Color**
 - Your new patient should appear under the eye color you gave them.

Backing up Database

1. From the File Tab choose **Save & Publish**
 - Under advanced choose **Back up Database**
 - You should do this on a regular basis, but definitely before you make any major changes
2. Exit Access
 - Right-Click on File, Choose "Send to Compressed Zipped Folder"
 - The Access Database inside the zipped folder is READ ONLY, meaning you cannot make changes to it. If you want to make the file editable, you will need to drag it out of the zipped folder.

Compact and Repair

1. Open Access, From the File Tab choose **Info**
 - Choose **Compact and Repair**
 - This will return any unused space and look for coding errors behind the forms and reports. You should do this when you have made major changes or added/removed a large amount of data. It is usually a good idea to back-up first.