


# Access - Chapter 1 - Creating a Database and Tables

## Guided Project 1-2

American River Cycling Club is a local cycling club. For this project, you create a database, containing one table, to store information about club members. After creating the database, add fields into the table, edit field properties, enter records, modify the datasheet layout, hide table fields, import data and sort and filter the data in the table.

**[Student Learning Outcomes 1.2, 1.3, 1.4, 1.5, 1.6]**


 **DO NOT** use the files below if you are completing an autograded SIMnet Project. Using the linked files below will prevent you from uploading and submitting your work in SIMnet. The files for all autograded SIMnet Projects **MUST** be downloaded from your class assignment.

File Needed: **MembersDataFile-01.xlsx** (Student data files are available in the Library of your SIMnet account.)

Completed Project File Name: **[your initials] Access 1-2.accdb**

### Skills Covered in This Project

- Create a blank database.
- Edit the default primary key.
- Add a new field into a table.
- Edit properties in *Datasheet* view.
- Save a table.
- Enter records.
- Change the datasheet layout.
- Change the datasheet layout.
- Hide table fields.
- Import records.
- Sort data in a table.
- Filter data in a table.

 **Alternate** This image appears when a project instruction has changed to accommodate an update to **Microsoft 365 Apps**. If the instruction does not match your version of Office, try using the alternate instruction instead.

1. Create a new blank database.
  - a. Open Access or click the **New** button [File tab] if an Access database is already open.
  - b. Select **Blank database**.
  - c. Enter **[your initials] Access 1-2** in the *File Name* box.
  - d. Click the **Browse** button to change the location in which to save your database and click **OK**.
  - e. Click the **Create** button. The database is created. A new table is created and opens in *Datasheet* view. If a table does not display, click the **Table** button [Create tab, Tables group] to create a new table.
2. Edit the default primary key and add new fields into the table.
  - a. Double-click the cell containing the **ID** field name (column header).
  - b. Type **MemberID** to replace *ID* in the *Field name* cell and press the **Enter** key. The *Click to Add* column to the right is selected so you can add the next field into the table.
  - c. Select the **Short Text** data type for this new field.
  - d. Type **FirstName** in the *Field1* column header and press the **Enter** key.
  - e. Select the **Short Text** data type.
  - f. Type **LastName** in the *Field1* column header and press the **Enter** key.
  - g. Add the remaining fields into the table using the information in Table 1-8. Remember that you select the data type first and then enter the field name.

**Table 1-8**

Data Type	Field Name
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Short Text	<b>Address</b>
Short Text	<b>City</b>
Short Text	<b>State</b>
Short Text	<b>ZIPCode</b>
Hyperlink	<b>EmailAddress</b>
Short Text	<b>CellPhoneNumber</b>

h. Press **Ctrl+S** to save all of the modifications you have made to the table.

i. Type **Members** as the new table name.

j. Click **OK**.

3. Edit the field properties of the *Members*

a. Click the **MemberID** field name.

b. Click the **Name & Caption** button [*Fields* tab, *Properties* group].

 **Alternate** Click the **Name & Caption** button [*Table Tools Fields* tab, *Properties* group].

c. Type **Member ID** in the *Caption* Because the field names in this table provide a clear description of the content, it is not necessary to enter anything into the *Description* property.

d. Click **OK**.

e. Select the **FirstName** field name.

f. Click the **Name & Caption** button [*Fields* tab, *Properties* group].

 **Alternate** Click the **Name & Caption** button [*Table Tools Fields* tab, *Properties* group].

g. Type **First Name** in the *Caption*

h. Click **OK**.

i. Type **20** in the **Field Size** property [*Fields* tab, *Properties* group].

 **Alternate** Type **20** in the **Field Size** property [*Table Tools Fields* tab, *Properties* group].

j. Change the remaining field properties in the table using the information in Table 1-9.

**Table 1-9**

Field Name	Caption	Size
LastName	<b>Last Name</b>	<b>25</b>
Address		<b>45</b>
City		<b>25</b>
State		<b>2</b>
ZIPCode	<b>ZIP</b>	<b>5</b>
EmailAddress	<b>Email</b>	N/A
CellPhoneNumber	<b>Cell Phone</b>	<b>12</b>

k. Click the **Save** button to save the changes to the table. With the changes to the field properties saved, the table is ready for you to begin to enter data records. Remember that even though you have changed the caption that displays as the column header in *Datasheet* view, the field names have not changed.

4. Enter the member records into the *Members* table.

a. Click the **FirstName** cell in the append row.

b. Type **Geneva** . The pencil icon displays, indicating that this record has not yet been saved.

c. Press the **Tab** key to move to the next field.

- d. Type **Lingle** in the *LastName* field. Press the **Tab** key to move to the next field.
- e. Type **1850 Stoneridge Court** in the *Address* field. Press the **Tab** key.
- f. Type **Cameron Park** in the *City* field. Press the **Tab** key.
- g. Type **CA** in the *State* field. Press the **Tab** key.
- h. Type **95682** in the *ZIPCode* field. Press the **Tab** key.
- i. Type **glingle@gmail.com** in the *EmailAddress* field. Press the **Tab** key.
- j. Type **780-886-6625** in the *CellPhoneNumber* field. Press the **Tab** key. The pencil icon no longer displays. You move to the *MemberID* field in the append row.
- k. Tab to the next field. Enter the information from Table 1-10 into the *Members* table. Remember that after you tab out of the *CellPhoneNumber* field you move to the *MemberID* field. Since *MemberID* is an *AutoNumber* field, do not enter a value and simply tab to the next field.

**Table 1-10**

FirstName	LastName	Address	City	State	ZIPCode	EmailAddress	Cell PhoneNumber
Cheryl	Wilson	7105 High Street	Folsom	CA	95630	cwilson@mcc.com	916-451-8325
Ryan	Thomas	2227 Alexandra Drive	Auburn	CA	95602	rthomas@gmail.com	916-753-5586
Roy	Baxter	705 First Street	Rocklin	CA	95677	roy@centralsierra.com	780-886-2471

5. Change the layout of the *Members* table.
  - a. Click to select the **ZIP** column.
  - b. Right-click to open the context menu.
  - c. Select **Field Width**.
  - d. Type **7** in the **Column Width** cell.
  - e. Click **OK** to close the dialog box.
  - f. Click the **Center Alignment** button [*Home* tab, *Text Formatting* group].
  - g. Click to select the **State** column.
  - h. Place your pointer on the right border of the **State** field name.
  - i. Double-click the **resize arrow** to adjust the *Column Width* using *AutoFit*.
  - j. Click the **Center Alignment** button.
  - k. Click the **Alternate Row Color** drop-down list [*Home* tab, *Text Formatting* group] and select **Blue-Gray, Text 2, Lighter 80%** (fourth column, second row in the *Theme Colors* category).
  - l. Press **Ctrl+S** to save the changes to the layout.
  - m. Close the *Members* table by clicking the **X** in the right corner.
6. Import data from Excel into the *Members* table.
  - a. Click the **New Data Source** button [*External Data* tab, *Import & Link* group], select **From File** and then select **Excel** to launch the *Get External Data – Excel Spreadsheet* dialog box.
  - b. Click the **Browse** button to launch the *File Open* dialog box.
  - c. Locate and select the **MembersDataFile-01** Excel file.
  - d. Click the **Open** button. The *File Open* dialog box closes.
  - e. Select the **Append a copy of the records to the table** radio button.
  - f. Click the **drop-down arrow** in the *table name* box and select the **Members** table if needed.
  - g. Click **OK** to launch the *Import Spreadsheet Wizard*. The data records should display in the *Import Spreadsheet Wizard* window.

- h. Click the **Next** button to advance to the next page of the *Import Spreadsheet Wizard*.
  - i. Verify that the *Import to Table* box contains the *Members* table.
  - j. Click **Finish**.
  - k. Click the **Close** button.
7. Open the *Members* table in *Datasheet*. Your table should contain the 14 records shown in Figure 1-111.

Figure 1-111 *Members* table after import

8. Hide the *State* field.
  - a. Select the **State** column.
  - b. Click the **More** button [*Home* tab, *Records* group] and then select **Hide Fields**.
  - c. Press **Ctrl+S** to save the changes to the table.
9. Sort the *Members* table.
  - a. Click the **drop-down arrow** to the right of the **City** field name.
  - b. Select **Sort A to Z** on the drop-down list. The records display in ascending order by the *City* field.
  - c. Click the **Remove Sort** button [*Home* tab, *Sort & Filter* group] to remove the sort criteria.
  - d. Click to select the **ZIP** column.
  - e. Click, hold, and drag the pointer to move the **ZIP** column to the left of the *Last Name* column.
  - f. Click anywhere to deselect the *ZIP* column.
  - g. Click and hold the pointer over the **ZIP** column. With the selection pointer still displayed, drag the pointer to the *Last Name* column. Release the pointer.
  - h. Click the **Ascending** button [*Home* tab, *Sort & Filter* group]. The records display in ascending order by the *ZIP* column. In cases of the same *ZIP* Code, the records are sorted in ascending order by the last name. Your table should look similar to Figure 1-112.
  - i. Click the **Remove Sort** button [*Home* tab, *Sort & Filter* group] to remove the sort criteria.
  - j. Click anywhere to deselect the columns.
  - k. Move the **ZIP** column to the right of the *City* column.
10. Filter the *Members* table using *Filter by Selection*.
  - a. Select **916** in the *Cell Phone* cell for *Member ID 2*.
  - b. Click the **Selection** button [*Home* tab, *Sort & Filter* group].
  - c. Select **Begins with "916"** from the drop-down list (Figure 1-113). The datasheet should display only the seven members who have a cell phone area code of 916.
  - d. Click the **drop-down arrow** to the right of the *Cell Phone* field name.
  - e. Select **Clear filter from Cell Phone** to remove the filter.

Figure 1-112 Records sorted on *ZIP* and *Last Name*

11. Filter the datasheet using a *Text Filter*.
  - a. Click the **drop-down arrow** to the right of the *Email* field name.
  - b. Select **Text Filters** on the drop-down list and select **Contains** from the second drop-down list (Figure 1-114). Notice in Figure 1-114 that



Figure 1-113 *Filter by Selection*

the second drop-down list displays to the left. The exact position varies based on the width of your screen and location of the Access window.

- c. Type **gmail** in the *Email contains* box.
  - d. Click **OK**. The datasheet should display only the five members who have *gmail* as part of their email addresses.
  - e. Click the **Toggle Filter** button [*Home* tab, *Sort & Filter* group] to switch back to viewing all the records.
  - f. Click the **Toggle Filter** button again to switch back to the filtered records.
  - g. Click the **drop-down arrow** to the right of the *Email* field name.
  - h. Select **Clear filter from Email** to remove the filter.
12. Close the *Members* table by clicking the **X** in the right corner. Select the **No** button in the dialog box. Do *not* save any of the changes made to the table.
  13. Review the completed *Members* table.
    - a. Double-click the **Members** table to view the table. The table should look similar to Figure 1-115. Note that the sorting and filtering changes were not saved.

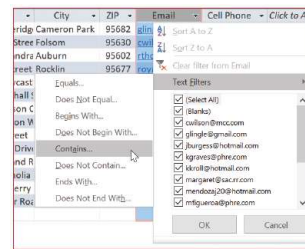


Figure 1-114 Text Filter

Member ID	First Name	Last Name	Address	City	ZIP	Email	Cell Phone
1	Geneva	Lingle	1850 Stoneridge	Cameron Park	95682	gingle@gmail.c	780-886-6625
2	Cheryl	Wilson	7105 High Stree	Folsom	95630	cwilson@mcc.c	916-451-8325
3	Ryan	Thomas	2227 Alexandra	Auburn	95602	rthomas@gma	916-753-5586
4	Roy	Baxter	705 First Street	Rocklin	95677	roy@centralsie	780-886-2471
5	Margaret	Jepson	28861 Newcast	Fair Oaks	95628	margaret@sac	780-862-9851
6	Javier	Mendoza	8364 Marshall	Roseville	95661	mendoza20@i	916-450-3329
7	Melanie	Figuroa	4511 Johnson C	Cameron Park	95682	mfiguroa@ph	916-450-3336
8	Sue	Schooler	4183 Braxton V	Rocklin	95677	sschooler@gm	780-824-3525
9	Kelsey	Kroll	306 7th Street	Roseville	95661	kkroll@hotmail	780-886-2457
10	Rick	Hermenn	9035 Masi Driv	Fair Oaks	95628	rickh@gmail.co	916-450-6719
11	Karen	Graves	6003 Ashland R	Lincoln	95648	kgraves@phre	916-450-3892
12	Robyn	Constantini	9581 Magnolia	Roseville	95661	robyn@gmail.c	780-886-2471
13	John	Burgess	85741 Auberry	Roseville	95661	jburgess@hotn	780-886-5862
14	Randy	Clemmins	7336 Lester Ro	Auburn	95602	rclemmins@ph	916-450-3330

Figure 1-115 Completed *Members* table

- b. Close the table by clicking the **X** in the right corner.
14. Add database properties using the *Database Properties* dialog box.
  - a. Click the **File** tab to open the *Backstage* view. If necessary, click **Info**.
  - b. Click the **View and edit database properties** link to open the *Database Properties* dialog box.
  - c. Type **American River Members** in the *Title* area.
  - d. Type **Taylor Mathos** in the *Author* area.
  - e. Type **ARCC** in the *Company* area.
  - f. Click **OK** to save the changes.
15. Close the database by clicking the **X** in the right corner of the application window.