



Access 2021 In Practice - Ch 2 Independent Project 2-5

[Redacted text]

[Redacted text]

Independent Project 2-5

Life's Animal Shelter wants to expand the database created in the *Independent Project 1-5*. To ensure consistency, the starting file is provided for you. In this project, you use *Design* view to create a second table, edit field properties, integrate data integrity rules, and enter data. You also create a relationship between the two tables and enforce referential integrity constraints. Finally, you add data using the relationship between tables.

[Student Learning Outcomes 2.1, 2.2, 2.3, 2.4, 2.6]

File Needed: **LifesAnimalShelter-02.accdb** (Available from the Start File link.)

Completed Project File Name: **[First Name.Last Name]-LifesAnimalShelter-02.accdb**

Skills Covered in This Project

- Create a table using *Design* view.
- Add fields into a table.
- Edit field properties in *Design* view.
- Create an input mask.
- Create a validation rule and validation text.
- Save a table.
- Enter records.
- Create a foreign key.
- Create a 1:M relationship between tables.
- Enforce referential integrity.
- View a table in *Datasheet* view and expand related records.

Steps to complete This Project

Mark the steps as checked when you complete them.

1. ☐ Open the **LifesAnimalShelter-02** database file.
2. ☐ The file will be renamed automatically to include your name. Change the project file name if directed to do so by your instructor, and save it.
3. ☐ Enable content in the security warning.
4. Create a new table using *Table Design*.
 - a. ☐ Add the fields in Table 2-29 into the table and set field properties.



Table 2-29

Field Name	Data Type	Description	Field Size
OwnerID	Short Text	Unique owner ID	4
OwnerLastName	Short Text	Last name	20
OwnerFirstName	Short Text	First name	20

Address	Short Text	Street address	40
City	Short Text		20
State	Short Text		2
ZIP	Short Text	ZIP Code	5
Phone	Short Text	Contact phone number	10

- b. ☐ Set *OwnerID* as the primary key.
 - c. ☐ Select the **State** field and type **TX** in the *Default Value*.
 - d. ☐ Save the table as **Owners**.
5. Create an input mask for the *Phone* field.
- a. ☐ Select the **Phone** field.
 - b. ☐ Use the **Phone Number** *Input Mask*. If a *Microsoft Access Security Notice* box displays, click **Open**.
 - c. ☐ Don't make any changes to the mask or placeholder character and select the **Without the symbols in the mask, like this** radio button.
 - d. ☐ Finish the *Input Mask Wizard*.
 - e. ☐ Save the table.
6. Create and test a field validation rule.
- a. ☐ Select the **OwnerID** field.
 - b. ☐ Type **Like "####"** in the *Validation Rule*.
 - c. ☐ Type **You must enter a 4-digit Owner ID** as *Validation Text*.
 - d. ☐ Save the table and switch to *Datasheet* view.
 - e. ☐ Test the rule by typing **11** in the first row of the *OwnerID* column.
 - f. ☐ Move to the *OwnerLastName* field. The message box should display the validation text message (Figure 2-92) since the *OwnerID* is not four digits long.

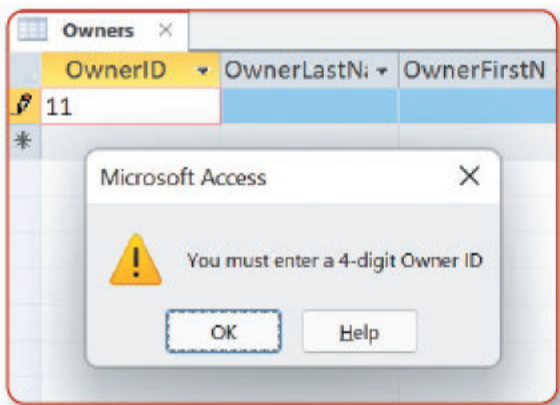


Figure 2-92 Field validation rule error message

- g. ☐ Click **OK** to acknowledge the error.
 - h. ☐ Delete the contents and type **1111** into the *OwnerID* field.
 - i. ☐ Verify that you successfully move to the *OwnerLastName* field since 1111 meets the validation rule criteria.
 - j. ☐ Delete this test data record.
7. ☐ Enter the records in Table 2-30 into the *Owners* table. Life's Animal Shelter doesn't have any data about the owners stored electronically so you are unable to import any data. Since the *State* field has a default value of TX, you can simply accept that value and tab to the next field. **Table 2-30**

Owner ID	OwnerLast Name	OwnerFirst Name	Address	City	State	ZIP	Phone
0100	Washington	Tyrone	11 Lakewood Drive	Abilene	TX	79601	325-614-9333
0101	Vollmer	Greg	2601 Nonesuch Road	Abilene	TX	79606	325-555-1112
0102	Rivera	Angela	2548 Laney Road	Denton	TX	76208	940-321-8020
0103	Moyer	Silvia	6867 Anglebluff Circle	Dallas	TX	75248	972-380-6188
0104	Wills	Mason	2421 Klondike Drive	Dallas	TX	75228	214-224-5555

8. ☐ Save and close the table.
9. Determine the foreign key field. Currently, a field is not common across the *Owners* and *Pets* tables. A one-to-many relationship exists between the two tables since an owner could adopt many pets, but each pet is only adopted by one owner. The foreign key comes by taking the primary key field from the *1* table and adding it in as an additional field in the *M* table.
- a. ☐ Open the *Pets* table in *Design* view.
- b. ☐ Add the foreign key field below the *Details* field using the information in Table 2-31.

Table 2-31

Field Name	Data Type	Description	Field Size
FKOwnerID	Short Text	Must match an OwnerID in the Owners table	4

- c. ☐ Save and close the *Pets* table.
10. Create a one-to-many relationship between the *Owners* and *Pets* tables.
- a. ☐ Open the *Relationships* window and add the two tables.
- b. ☐ Enlarge the table objects, if needed, to see all of the fields.
- c. ☐ Drag the **OwnerID** field from the *Owners* table on top of the **FKOwnerID** field in the *Pets* table. Release the pointer. The *Edit Relationships* dialog box displays.
- d. ☐ Select the choices to **Enforce Referential Integrity** and **Cascade Update Related Fields**.
- e. ☐ Leave the *Cascade Delete Related Records* check box not selected. The shelter does not want to delete pet records when it deletes information about an owner.
- f. ☐ Create the relationship.
- g. ☐ Save the changes and close the *Relationships* window.
11. Enter the following data into the specified records in the *Pets* table to reflect which pets have been adopted:
- a. ☐ Open the *Pets* table in *Datasheet* view.
- b. ☐ Type **0100** in the *FKOwnerID* field for *PetID 1*.
- c. ☐ Type **0103** in the *FKOwnerID* field for *PetID 3*.
- d. ☐ Type **0100** in the *FKOwnerID* field for *PetID 12*.
- e. ☐ Type **0104** in the *FKOwnerID* field for *PetID 14*.
- f. ☐ Close the *Pets* table.
12. View the related data records in the *Owners* table.
- a. ☐ Open the *Owners* table in *Datasheet* view.
- b. ☐ Click the **plus sign** to the left of the *OwnerID* field for *Tyrone Washington, OwnerID 0100*. You should see the two pets adopted by Tyrone.
- c. ☐ Close the *Owners* table.
13. ☐ Close the database.
14. ☐ Upload and save your project file.
15. ☐ Submit project for grading.
-