Independent Project 2-5 AirTable Alternative

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.

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 One-to-Many (1:M) relationship between tables.
- Enforce referential integrity.

Steps To Create and Populate the Owners Table

1. Right-click on the shared **LifesAnimalShelter-02** database and select 'Duplicate base' to create your own editable copy. (Leave all the settings as they are in the subsequent dialog.) **May be able to use the database created in Ch 1 project.**
2. Right-click on the newly copied database and edit the name on the subsequent dialog by replacing the word 'copy' (at the end) with your first and last name. Press 'Return' to save this new name.
3. Click on your new database to open it.
4. Create a new table by clicking the '+' at the top to the right of the *Pets* table tab. Name this new table as **Owners**.
5. The new table is automatically created with three fields (or columns): Name, Notes, and Attachments.
6. Right-click on the *Name* field and rename this to Owner ID. Customize its field type to Number

and set the Format to Integer. Click 'Save'. With Owner ID as the first, left-most column it is set as the primary field. This is similar to the primary key field that is used in other database systems like Access.

7. Click the '+' button to the right of the Attachments field (column) header to add a new field. Use this button to add each of the following fields with the name and data type to the Owners table:

Field Name	Data Type	Default Value
Owner ID	Single line text	
Owner Last Name	Single line text	
Owner First Name	Single line text	
Address	Single line text	
City	Single line text	
State	Single line text	TX
ZIP	Single line text	
Phone	Phone number	

Enter the following records into the Owners table.

Owner ID	Owner Last Name	Owner First Name	Address	City	State	ZIP	Phone
100	Smith	Albert	11 Lakewood Drive	Abilene	TX	79601	325-614-9333
101	Weston	Mark	2601 Nonesuch Road	Abilene	TX	79806	325-555-1112
102	Rivera	Angela	2548 Laney Road	Denton	TX	79208	940-321-8020
103	Moyer	Silvia	6867 Anglebluff Circle	Dallas	TX	75248	972-380-6188
104	Wills	Mason	2421 Klondike Drive	Dallas	TX	75228	214-224-5555

Determine the Foreign Key Field

We need to establish a relationships or link between 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.

In other words, we want to add a field to the Pets table that provides a reference back to the pet's owner, specifically the owner's ID.

1. Click the Pets table and scroll to the right until you are able to click on the '+' button to add a new field. Name this field "FKOwner ID". For the data type, select the 'Link to another record' then choose the **Pets** table from the subsequent dialog.
2. Deselect the 'Allow linking to multiple records' by clicking the slider. Leave the 'Limit record selection to a view' un-selected. Click 'Save'.
3. Enter the following data into the specified records of the *Pets* table to reflect which pets have been adopted:
   1. Open the *Pets* table.
   2. Type "100" in the *FKOwner ID* field for Pet ID 1.
   3. Type "103" in the *FKOwner ID* field for Pet ID 3.
   4. Type "100" in the *FKOwner ID* field for Pet ID 12.
   5. Type "104" in the *FKOwner ID* field for Pet ID 14.

View the related data records in the *Owners* table. Click the 'Expand cell' (blue double-headed arrow) to view which pets have been adopted by select Owners.

Submit Your Work

Once your database is ready for grading, click the *Share* button in the upper right and send an invitation to me (bruce.caraway@lonestar.edu) so that I can review your work.