Access 2013 capstone project AC-2

Working with a Sales Database

In this project, you will work with a sales database from Top't Corn, a popcorn company with a multiple food trucks and one store in a local shopping mall. Previously, Top't Corn kept their data in multiple Excel workbooks. Recently, they decided to expand their product offerings at different price points, and they realized they needed a more robust database to track sales. You will help them create new database tables and clean up data imported from Excel.

You will begin by creating new tables to track sales and sale details. You will use the Form Wizard to create a form based on the new tables. Next, you will modify the existing *Items* table and create a form based on that table. You will create a new form from scratch in Layout view to display records from the *Locations* table. Next, you will clean up the imported data in the *Sales_Archive* table and create a relationship between the data in the *Sales_Archive* and the *Items* tables. You will create a series of queries using a variety of criteria. Finally, you will create a report using the Report Wizard and another report from scratch in Layout view.

Skills needed to complete this project:

- Create and save a new table
- Add a new field to a table
- Create a lookup field using values from another table
- Apply date formatting to a field by modifying the field Format property
- Create a lookup field using list values
- Create a new record in a table
- Adjust table column widths
- Set a default value for a field in a table
- Use the Form Wizard to create a new form
- Change the data type of a field
- Create a Single Record form based on a table
- Create a new blank form in Layout view
- Add fields to a blank form from Layout view
- Resize controls in a form
- Move controls in a form
- Delete a field from a table
- Delete a record from a table
- Find and replace data in a table
- Rename a field in a table
- Create a one-to-many relationship between two tables
- Enforce referential integrity in a one-to-many relationship
- Create a simple select query to combine fields from multiple tables
- Add text criteria to a query
- Hide a field in a query
- Use OR in a query
- Add numeric criteria to a query
- Use AND in a query
- Use the Report Wizard to create a new report
- Create a new blank report
- Add fields to a blank report from Layout view
- Resize controls in a report
- Arrange controls in a report

Step 1
Download start file

1. Open the start file **AC2013-Capstone-Level2**. **NOTE:** If necessary, enable active content by clicking the **Enable Content** button in the Message Bar.
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. Create a new table from scratch to track sales.
   a. The first field should be an **AutoNumber** field named: **SaleID**
   b. The second field should be a **Date & Time** field named: **SaleDate**
   c. The third field should be a lookup field. (Hint: Use the Lookup Wizard to create the new field.) It should display the **LocationDescription** field from the **Locations** table. Values in the lookup should be sorted by values in the **LocationDescription** field. Include the **LocationID** field in the lookup, but do not display it. (Hint: Hide the key column.) Enable data integrity by restricting deletions. Name this field: **SaleLocation**
   d. Save the table with the name: **Sales**
4. Switch to Design view and modify field properties.
   a. Apply the **Long Date** format to the **SaleDate** field.
5. Add a new lookup field as the last field in the **Sales** table to track payment type. (Hint: Use the Lookup Wizard to create the new field.)
   a. Name the field: **PaymentType**
   b. The lookup field should display these values in this order:
      Cash
      Credit Card
      Gift Card
   c. Limit data entry to values in the list. Do not allow multiple values.
   d. Save the table.
6. Switch back to Datasheet view to add sample records to the **Sales** table.
   a. Add three records to the table with the following data. (Hint: Remember, the first field in the table, **SaleID**, is an AutoNumber field, so there is nothing to enter for each record.)

SaleDate	SaleLocation	PaymentType
10/1/2014	Georgetown	Cash
10/1/2014	George Washington University	Cash
10/1/2014	George Washington University	Credit Card

   b. Adjust the width of the **SaleDate** field so the entire long date is visible.
   c. Save and close the table.
7. Create a new table to capture the details for each sale.
   a. The first field should be an AutoNumber field named: **SaleDetailID**
   b. The second field should be a lookup field named: **SaleID** The lookup field should be limited to values in the **SaleID** field of the **Sales** table. Include only the **SaleID** in the lookup field. Enable data integrity by restricting deletions.
   c. Save the table as: **SaleDetails**

d. Add a third field to the far right of the table. Name this field: **Item** It should display the **ItemName** field from the **Items** table. Include all the fields from the **Items** table. Sort the lookup items by values in the **ItemName** field. Hide the primary key field. Enable data integrity by restricting deletions.

e. Add a **Number** field to the right of the **Item** field. Name the field: **Quantity**

f. Set the default value for the **Quantity** field to: 1

g. Add three records to the table with the following data. (Hint: Remember, the first field in the table, **SaleDetailID**, is an AutoNumber field, so there is nothing to enter for each record.)

SaleID	Item	Quantity
1	Chocolate	2
1	Sea Salt and Caramel	1
2	Sea Salt and Caramel	6

h. Close the table.

8. Use the Form Wizard to create a new form for inputting sales data.

a. Include all the fields from the **Sales** table.

b. Include the **Item** and **Quantity** fields from the **SaleDetails** table.

c. View the form data by records in the **Sales** table with related records in the **SaleDetails** table displayed in a subform.

d. The subform should be displayed as a Datasheet.

e. Name the main form: **SalesForm** and name the subform: **SaleDetailsSubform** (Hint: Be sure to remove the space between SaleDetails and Subform in the subform name suggested by Access.)

f. Open the form in Form view to review your work.

g. Navigate to the record in the main form for SaleID **3** and enter sale details in the subform as follows:

Item: **Original Blend**, Quantity: **2**

Item: **Old Bay**, Quantity: **1**

h. Close the form.

9. Open the **Items** table and modify the table fields as follows:

a. Set the **Default Value** property for the **Price** field to: **5**

b. Change the data type for the **Price** field to: **Currency**

c. Autofit the width of the **ItemName** field.

d. Save the changes and close the **Items** table.

10. Create a **Single Record** form using the **Items** table as the record source. Save the form with the name: **ItemsForm**

11. Begin a new blank form in Layout view.

    a. From the **Locations** table, add the **LocationID, LocationDescription,** and **Comments** fields in that order, at the left side of the form.

    b. Widen the labels so **LocationDescription** is completely visible.

    c. From the **Locations** table, add the **OpenTime** field to the right of the **LocationID** controls.

    d. From the **Locations** table, add the **CloseTime** field to the right of the **OpenTime** controls.

    e. Move the **OpenTime** and **CloseTime** controls so they are next to the **LocationDescription** controls instead.

    f. From the **Locations** table, add the **Days** field to the form layout in the empty space to the right of the **LocationID** controls, above the **OpenTime** controls.

12. Save the form with the name: **LocationsForm**

13. Close the forms.

14. Open the **Sales_Archive** table.

    a. Delete the **Total** field.

    b. Find the record with the ID **500** and delete it. (Hint: It is the last record in the table.)

    c. Find and replace each **ItemID** value **OLDB** with **OLDB005**.

    d. Rename the **TotalSal** field to: **TotalSale**

    e. Save and close the table.

15. Use the Relationships window to create a relationship between the *Items* and *Sales_Archive* tables.

    a. Show the **Sales_Archive** table in the Relationships window.

    b. Create a one-to-many relationship between the **ItemID** field in the **Items** table and the **ItemID** field in the **Sales_Archive** table. You may rearrange the tables in the Relationships window if you want.

    c. Enforce referential integrity so a record cannot be deleted or altered in the *Items* table if it would cause a conflict with the data in the *Sales_Archive* table.

    d. Close the Relationships window and save the changes.

16. Create a query to display sales of Old Bay flavored popcorn from the *Sales_Archive* table.

    a. Include the following fields in this order: the **Date, Quantity,** and **TotalSale** fields from the **Sales_Archive** table and the **ItemName** field from the **Items** table.

    b. Add the criteria **Old Bay** to the **ItemName** field. Run the query to check your work. (Hint: There should be 32 records in the query results.)

    c. Save the query as **OldBayQry** and then close the query.

17. Create a query to display sales of Old Bay ***or*** Truffle flavored popcorn from the *Sales_Archive* table
    a. Include the following fields in this order: the **Date, Quantity,** and **TotalSale** fields from the **Sales_Archive** table and the **ItemName** field from the **Items** table.
    b. Add the criteria **`Old Bay`** or **`Truffle`** to the **ItemName** field. Run the query to check your work. (Hint: There should be 55 records in the query results.)
    c. Save the query as **`NewFlavorsQry`** and then close the query.
18. Create a query to display sales greater than $40.00 from the *Sales_Archive* table.
    a. Include the following fields in this order: the **Date** from the **Sales_Archive** table, **ItemName** field from the **Items** table, and **TotalSale** from the **Sales_Archive** table.
    b. Add criteria to the **TotalSale** field to return only sales **greater than $40.00**. Run the query to check your work. (Hint: There should be 22 records in the query results.)
    c. Save the query as **`HighDollarSalesQry`** and close it.
19. Create a query to display sales greater than $40 of Truffle flavored popcorn from the *Sales_Archive* table
    a. Include the following fields in this order: the **ItemName** field from the **Items** table and the **Date, Quantity,** and **TotalSale** fields from the **Sales_Archive** table.
    b. Add the criteria to the query to return only records where the **ItemName** is **Truffle** and the **TotalSale** is **greater than $40.00**. Run the query to check your work. (Hint: There should be 6 records in the query results.)
    c. Save the query as **`HighDollarTruffleQry`** and then close the query.
20. Create a report based on the **NewFlavorsQry** query. Hint: Use the Report Wizard.
    a. Include the fields from the **NewFlavorsQry** query in this order: **ItemName, Date, Quantity,** and **TotalSale**.
    b. View the data by the **Items** table.
    c. Do not add any additional grouping.
    d. Sort the detail records by date.
    e. Use the Stepped layout in Portrait orientation.
    f. Name the report **`NewFlavorRpt`** and then view the report to check your work.
21. Create a new report from scratch in Layout view.
    a. From the **Sales_Archive** table, add the **Date** field to the report. Add these fields in order to the right of the **Date** controls: **ItemName** from the **Items** table, **Quantity** from the **Sales_Archive** table, and **TotalSale** from the **Sales_Archive** table.

b. Resize the **ItemName** controls so all the item names are visible. (Hint: Scroll down the report to find the records for sales of Sea Salt and Caramel flavored popcorn and then widen the **ItemName** column.)

c. Add the **ItemID** field from the **Items** table. Move the **ItemID** controls so they appear to the left of the **ItemName** controls.

d. Save the report as: **SalesArchiveRpt**

22. Save and close any open database objects and then close the database.

Step 2
Upload & Save

23. Upload and save your **project file**.

Step 3
Grade my Project

24. Submit project for grading.