Access Capstone AirTable Alternative

Skills Covered in 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 an input mask to a field in a 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 Split 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
- Add a logo to a form header
- Delete a field from a table
- Import a table from an Access database
- Rename a table
- Delete a record from a table
- Find and replace data in a table
- Rename a field in a table
- Import records from an Excel worksheet
- 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
- Specify the sort order in a query
- Use AND in a query
- Add date criteria to a query
- Add a calculated field to a query

- Create a parameter query
- Use the Report Wizard to create a new report
- Group records in a report
- Add totals to a 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
- Add the date to a report header
- Add page numbers to a report footer

Instruction Steps

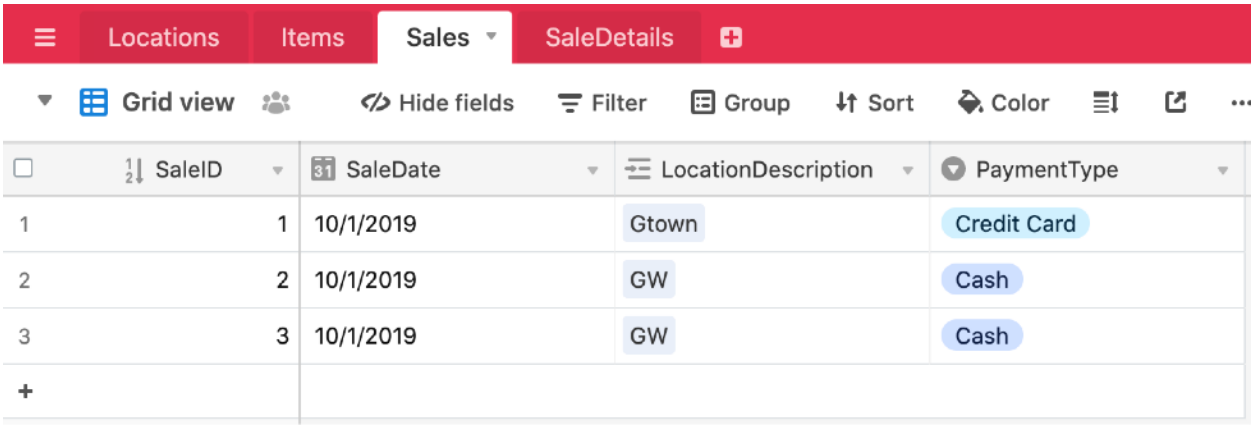
1. Accept my invitation to add the shared template database **Access-capstone** to your catalog of databases. (You should have receive an invitation from me with a link to the shared Airtable database.)
2. Right-click on the shared database and select 'Duplicate base' to create your own editable copy. (Leave all the settings as they are in the subsequent dialog.)
3. 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.
4. Click on your new database to open it.
5. Create a new empty table with the name: **`Sales`**.
    a. The first field should be an AutoNumber field named: **`SaleID`**. (Note: you will need to replace the default fields that are created in the table automatically, e.g., Name, Notes, etc.)
    b. The second field should be a **Date** field named: **`SaleDate`**.
    c. The third field should be linked to records in the Locations table. Name this field: **`SaleLocation`**. When creating the table link, it should also be set to *not* allow linking to multiple records.

6. Add a new lookup field as the third field in the **Sales** table to track payment type. (Hint: Use the **Single Select** type 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`**
        - **`Store Credit`**

7. Add three records to the **Sales** table with the following data.

SaleDate	SaleLocation	PaymentType
10/01/2019	Georgetown	Credit Card
10/01/2019	George Washington University	Cash
10/01/2019	George Washington University	Cash

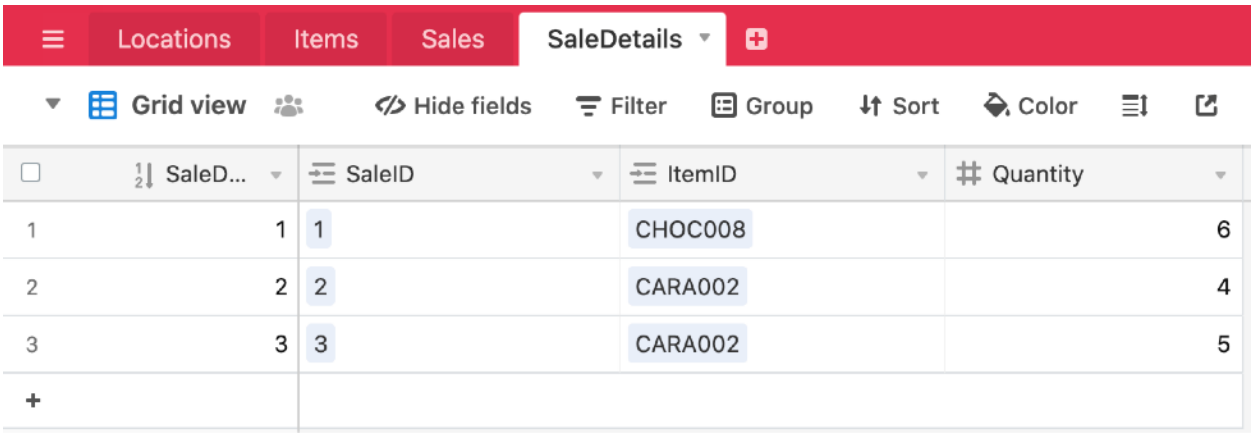
8. Your **Sales** table should look like the following…



8. Create a new table to capture the details for each sale. Name this table: **`SaleDetails.`**
    a. The first field should be an AutoNumber field named: **`SaleDetailID.`**
    b. The second field should be a lookup field named: **`SaleID`**. This field should be linked to records in the **Sales** table. When creating the table link, it should also be set to *not* allow linking to multiple records.
    c. Add a third field to the table. Name this field: **`ItemID`**. This is another lookup field linked to records in the **Items** table. When creating the table link, it should also be set to *not* allow linking to multiple records.
    d. Add a **Number** field to the right of the **ItemID** field. Name the field: **`Quantity`**. Set its format to **Integer (2)**. Set its default value to: **`1`**
    e. Add three records to the table with the following data.

SaleID	Item	Quantity
1	Chocolate	6
2	Sea Salt and Caramel	4
3	Sea Salt and Caramel	5

9. Your **Sales** table should look like the following…



8. Add a Form for inputting SaleDetails data with the name **`SalesForm`**.
    a. Insert sales detail for SaleID **3** with the following item data:
    Item: **Original Blend** (ORIG001), Quantity: **4**
    Item: **Old Bay** (OLDB005), Quantity: **6**
    b. Return to the Grid View of the SaleDetails table and see if your two records have been added.
9. Open the **Items** table and customize the table fields as follows:
    a. Set the **Default Value** property for the **Price** field to: **`7`**.
    b. Change the data type for the **Price** field to: **Currency**
    c. Save the changes.
10. Add a Form for inputting **Items** data with the name: **`SingleRecordForm`**.
11. Add a Form for inputting **Locations** data with the name: **`LocationsForm`**.
12. Create a new table by importing the **StoreSales** table from the **SalesSales.csv** file (this file is shared via Slack). Here's an Airtable Help article on importing a .csv file: https://support.airtable.com/hc/en-us/articles/202579399-Creating-a-new-base-via-CSV-spreadsheet-import.
13. Rename this imported table as **`SalesArchive`**.
    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`**.

14. Copy the records from the Excel file **NewSalesData** (this file is shared via Slack) and append the records to the **SalesArchive** table.
15. Customize the field type of the **ItemID** column in the **SalesArchive** table setting this to Link to the **Items** table.

16. Create a Grid View on the **SalesArchive** table named: **`TruffleView`**.
    a. Add a Filter to display only those orders for **Truffle** flavored popcorn.
    b. Include the following fields in this order:
    the **SaleDate**, **Quantity**, **TotalSale** and **ItemID** fields from
    the ***SalesArchive*** table. (Hint: There should be 49 records in the resulting grid.)

17. Create a second Grid View on the **SalesArchive** table named:
    `NewFlavorsView`.
    a. Add a Filter to display sales of **Old Bay *or* Truffle** flavored popcorn.
    b. Include the following fields in this order:
    the **SaleDate**, **Quantity**, **TotalSale**, and **ItemID**. (Hint: There should be 114 records in the query results.)

20. Create a third Grid View on the **SalesArchive** table named:
    `HighDollarSalesView`.
    a. Add a Filter to display **TotalSale** that are **greater than 100**. (Hint: The data type of this field may need to be updated).
    b. Include the following fields in this order: the **SaleDate**, **ItemID**,
    and **TotalSale**.
    c. Specify the sort order in the query, so the results always display the records with the highest values in the **TotalSale** field first. Run the query to check your work. (Hint: There should be 15 records in the query results.)

21. Create a fourth Grid View on the **SalesArchive** table named:
    `HighDollarOldBayView`. display sales for more than $100 of Old Bay flavored popcorn from the *SalesArchive* table
    a. Add a Filter to display **TotalSale** that are **greater than 100** and only include orders of **Old Bay** flavored popcorn.
    b. Include the following fields in this order: the **SaleDate**, **Quantity**,
    and **TotalSale** (Hint: There should be 3 records in the query results.)

22. Create a fifth Grid View on the **SalesArchive** table named:
    `July4OriginalBlendView`.
    a. Add a Filter to display sales of **Original Blend** popcorn on **July 4, 2019**. (Hint: The data type of one or more fields may need to be updated if you are unable to get results you expect.)
    b. Include the following fields in this order: the **SaleDate, Quantity,** and **ItemID** fields from the **SalesArchive** table.
    c. Add a Filter to criteria to the query to return only records where the **ItemName** is **Original Blend** and the Date is **July 4, 2019**. Run the query to check your work. (Hint: There should be 3 records in the query results.)

23. Create a sixth Grid View on the **SalesArchive** table named: `CostPerUnitView`.
    a. Include the following fields in this order: the **ItemID, Quantity,** and **TotalSale** fields from the **SalesArchive** table.
    b. Add a Formula field to the far right column that calculates the value of the **TotalSale divided by Quantity**. (Hint: The data type of the Quantity may need to be updated). Name this field: `CostPerUnit`. Set this fields formatting to be `Currency`. (Hint: There should be 240 records in the query results.)

25. Create a seventh Grid View on the **SalesArchive** table named: `NewFlavorsRpt`.
    a. Include the fields from the in this order: **ItemID**, **SaleDate**, **Quantity**, and **TotalSale**.
    b. View the data by the **Items** table.
    c. Do not add any additional grouping.
    d. Sort the detail records by sale date.

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.