Personal Insurance, Inc.

Concepts of Database Management Access 2019 | Module 2: SAM Project 1a



Creating Queries

# GETTING STARTED

* Open the file **CDBM\_AC19\_2a\_*FirstLastName*\_1.accdb**, available for download from the SAM website.
* Save the file as **CDBM\_AC19\_2a\_*FirstLastName*\_2.accdb** by changing the “1” to a “2”.

If you do not see the .accdb file extension in the Save As dialog box, do not type it. The program will add the file extension for you automatically.

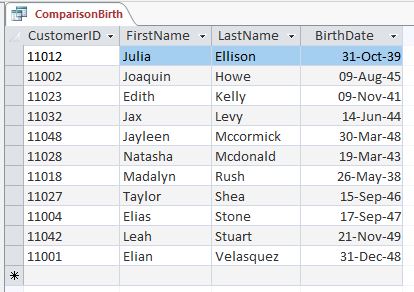
* To complete this SAM Project, you will also need to download and save the following data files from the SAM website onto your computer:

Support\_AC19\_2a\_UmbrellaData.xlsx

* Open the **\_GradingInfoTable** table and ensure that your first and last name is displayed as the first record in the table. If the table does not contain your name, delete the file and download a new copy from the SAM website.
* PROJECT STEPS

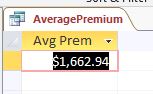
1. Personal Insurance, Inc. is a national company that insures homeowners and renters. It also offers umbrella policies that provide additional coverage. As a regional manager, you need to be able to query the database to help make decisions and to answer questions from other employees.   
     
   Create a query based on the *Customers* table in Query Design View with the following options:
   1. Add the *CustomerID*, *FirstName*, *LastName*, and *DateOfBirth* fields to the design grid in that order.
   2. **Sort** the records in **ascending** order by *LastName*.
   3. Save the query using **CustomerLastNameSorted** as the name.  
      Open the query in Datasheet View, then close it, saving if necessary.
2. Open the *HomeownersPremium* query in Design View and make the following changes to the query:
   1. **Delete** the *CustomerID* column from the design grid.
   2. Add criteria to select only those records where the *Premium* field value is **greater than** **2,000**.
   3. Save the changes to the *HomeownersPremium* query.  
      Open the query in Datasheet View, then close it, saving if necessary.
3. Open the *LiabilityOrProperty* query in Design View and add criteria to select only those records where the *Liability* field values **equal** **75,000** **or** the *PersonalProperty* field values **equal** **75,000**. Save the changes to the query. Open the query in Datasheet View, confirm that 3 records appear in the *LiabilityOrProperty* query results, then close the query, saving if necessary.
4. Open the *ComparisonBirth* query in Design View and make the following changes to the query:
   1. **Add** the *FirstName* field to the query design grid. The *FirstName* field should immediately follow the *CustomerID* field.
   2. Add criteria to select only those records where the *DateOfBirth* field value is **less than 1/1/1950**.
   3. Set the format to **Medium Date** for the *DateOfBirth* field.
   4. Set the caption to **BirthDate** for the *DateOfBirth* field.
   5. Save the changes to the *ComparisonBirth* query.  
      Open the query in Datasheet View, confirm that the results match Figure 1, then close it, saving if necessary.

* Figure 1: ComparisonBirth query results



1. Open the *StateCitySort* query in Design View and make the following changes:
   1. Move the *State* field to the **beginning** of the design grid so that the order of the fields in the grid is *State*, *City*, *FirstName*, and *LastName*.
   2. **Sort** the records in **descending** order by the *State* field and in **ascending** order by *City*.  
      Save the changes to the query. View the query in Datasheet View, then close it, saving if necessary.
2. Open the *LiabilityAndProperty* query in Design View and add criteria to select only those records where the *Liability* field values **equal** **100,000** **and** the *PersonalProperty* field values **equal** **100,000**. Save the changes to the query. Open the *LiabilityAndProperty* query in Datasheet View, confirm that 2 records appear in the query results, then close the query, saving if necessary.
3. Open the *MichiganCustomers* query in Design View and add criteria to select only those records where the *State* field value is **MI**. Save the changes to the query. Open the query in Datasheet View, confirm that 7 records appear in the query results, then close the query, saving if necessary.
4. Because customers of Personal Insurance reside in many different cities, it is often difficult to know the exact spelling of a city. Open the *CustomerCity* query in Design View and add criteria to select only those records where the *City* field value **begins with the letters Al**. Save the changes to the query. Open the query in Datasheet View, confirm that 2 records appear in the query results, then close the query, saving if necessary.
5. Many queries require data from more than one table. For example, you may want a query to display the customer last name rather than the customer ID for a renter's policy. Create a query in Design View based on the *Customers* and *Renters* tables with the following options:
   1. Add the *Customers* table and the *Renters* table to the design window.
   2. Add the *LastName* field from the *Customers* table to the design grid.
   3. Add the *PolicyNumber* and *Premium* field from the *Renters* table to the design grid.
   4. **Join** the *Customers* table and the *Renters* table by drawing a line from the *CustomerID* field in the *Customers* table to the *CustomerID* field in the *Renters* table. (Hint: Because the field names are identical in both tables, the line may already be there.)
   5. Save the query using **Customer-Renter** as the name.  
      Open the query in Datasheet View, then close it, saving if necessary.
6. Because customers live in different states, it is often advantageous to create a query where you can change one criteria using a parameter query. Open the *StatesParameter* query in Design View.
   1. Add parameter criteria to the *State* field to replace the current "FL" criteria. The new parameter criteria should prompt the user with **Enter desired state** as the text.
   2. Save the changes to the query.
   3. View the query in Datasheet View. Enter **PA** when prompted.  
      Confirm that 8 records appear in the query results then close the query, saving if necessary.
7. Open the *TopValuesProperty* query in Design View. Modify the query to **sort** the *PropertyDamage* amounts in **descending** order. Change the Return value to display only the top **5** records. Open the query in Datasheet view, then close the query, saving if necessary.
8. Open the *TotalCoverage* query in Design View. Modify the query by creating a calculated field. Enter **TotalCoverage: [Liability]+[PropertyDamage]** in the Zoom dialog box of the first empty column in the design grid. Save the query. Open the query in Datasheet View, then close the query, saving if necessary.
9. Open the *AveragePremium* query in Design View and perform the following tasks:  
   1. Add a **Totals** row to the design grid.
   2. Select **Avg** as the calculation in the Total row.
   3. Set the caption to **Avg Prem** for the Premium field.  
        
      Save the changes to the query. Open the query in Datasheet View and confirm that it matches Figure 2. Close the query, saving if necessary.

* Figure 2: AveragePremium query results



1. Open the *CustomersWithoutHomes* query in Design View and perform the following tasks:
   1. Change the **join property** for the relationship between the *Customers* and *Homeowners* tables to select **ALL** records from the *Customers* table and only those records from the *Homeowners* table where the joined fields are equal.
   2. Add the **Is Null** criteria for the *PolicyNumber* field and add an **Ascending** sort order on the *LastName* field.  
      Save the changes to the query. Open the query in Datasheet View and confirm that there are 21 records in the query result. Close the query, saving if necessary.
2. Open the *UniqueStates* query in Design View. Modify the query to list all states only once. Save the changes to the query. Open the query in Datasheet View and confirm that there are 15 records in the query result. Close the query, saving if necessary.
3. Create a crosstab query based on the *MidAtlantic* table with the following options:
   1. Use only data from the *MidAtlantic* table in the crosstab.
   2. Use the *State* field for the row headings.
   3. Use the *City* field for the column headings.
   4. Use a **Count** of the *CustomerID* field as the calculated value for each row and column intersection, and include row sums in the crosstab query.
   5. Save the query using **State-City Crosstab** as the name.  
      View the query, then save and close it.
4. Export the *Renters* table as an Excel file (.xlsx) with the name **Renters** to the same folder as the one that stores your database. Do not export the data with formatting and layout. Save the export steps using **Export-Renters** as the name. Do not add a description.  
   Save the changes to the table and close it.
5. Use the Import Spreadsheet Wizard to import the data from the **Support\_AC19\_2a\_UmbrellaData.xlsx** support file and **append** it to the *Umbrella* table. Do not save the Import steps. Open the *Umbrella* table in Datasheet View. It should contain 14 records. Close the table.
6. Rename the *PennsylvaniaOwners* query as **PennsylvaniaCustomers** in the Navigation Pane.
7. Group the objects in the Navigation Pane by **Tables and Related Views**.

Save and close any open objects in your database. Compact and repair your database, close it, and then exit Access. Follow the directions on the SAM website to submit your completed project.