


Guided Project 3-2

San Diego Sailing Club wants to create three queries. To ensure consistency, the starting file is provided for you. Use *Design* view to create, edit, add aggregate functions, and add criteria to a query to find the total dollar value of the rentals for each boat in its fleet. After saving and testing the query, create a second query that uses aggregate functions and a parameter. Finally, create a query to find which boat types have been rented. **This project has been modified for use in SIMnet®.**

Skills Covered in This Project

- Create a query using *Design* view.
- Add fields to a query.
- Add criteria to a query.
- Execute a query.
- Save and test a query.
- Save a copy of a query.
- Add a parameter.
- Use aggregate functions.
- Use the *Unique Values* property.

 **Alternate** This image appears when a project instruction has changed to accommodate an update to Microsoft Office 365. If the instruction does not match your version of Office, try using the alternate instruction instead.

Step 1:
Download
start file

1. Open the **SailingDatabase-03.accdb** database start 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.
3. Enable content in the security warning.
4. Create a new summary query in *Design* view. The **Sailing Club** wants to find out the total dollar value of the full day rentals, by boat, from the boats that have been rented. If a boat has been rented, there is a record in the *SDRentals* table.
 - a. Click the **Query Design** button [*Create* tab, *Queries* group] to open the *Show Table* dialog box.
 - b. Select the **SailboatFleet** table and click the **Add** button.
 - c. Select the **SDRentals** table and click the **Add** button.
 - d. Click the **Close** button in the *Show Table* dialog box.
 - e. Increase the size of the table objects to display all of the fields.
 - f. Click the **drop-down arrow** in the first *Field* row cell of the query design grid and select **SDRentals.FKBoatID**.
 - g. Click the **second cell** in the *Field* row, click the **drop-down arrow**, and select **SailboatFleet.BoatType**.
 - h. Click the **third cell** in the *Field* row, click the **drop-down arrow**, and select **SailboatFleet.FullDayRentalRate**.
 - i. Click the **fourth cell** in the *Field* row, click the **drop-down arrow**, and select **SDRentals.FourHourRental?**.
 - j. Click the **Totals** button [*Query Tools Design* tab, *Show/Hide* group].
 - k. Click the **Run** button [*Query Tools Design* tab, *Results* group] to execute the query. The query should open in *Datasheet* view and display 16 records (Figure 3-86). This query only shows boats that have been rented. At

Boat ID	Boat Type	Full Day Rental	Four Hour Rental
1010	Catalina 270	\$179.00	<input checked="" type="checkbox"/>
1010	Catalina 270	\$179.00	<input type="checkbox"/>
1015	Catalina 270	\$179.00	<input checked="" type="checkbox"/>
1015	Catalina 270	\$179.00	<input type="checkbox"/>
1146	Hunter 33	\$349.00	<input type="checkbox"/>
1150	Capri 22 Mk II	\$89.00	<input checked="" type="checkbox"/>
1152	Capri 22 Mk II	\$89.00	<input checked="" type="checkbox"/>
1152	Capri 22 Mk II	\$89.00	<input type="checkbox"/>
1164	Capri 22 Mk II	\$89.00	<input checked="" type="checkbox"/>
1168	Hunter 33	\$349.00	<input type="checkbox"/>
1185	Hunter 36	\$389.00	<input type="checkbox"/>
1225	Hunter 36	\$389.00	<input checked="" type="checkbox"/>
1225	Hunter 36	\$389.00	<input type="checkbox"/>
1310	Beneteau 373	\$409.00	<input type="checkbox"/>
1401	Capri 22 Mk II	\$89.00	<input checked="" type="checkbox"/>
1419	Hunter 33	\$349.00	<input checked="" type="checkbox"/>

3-86 Sailboat query results

most a *Boat ID* appears in two rows; one row if the *Four Hour Rental?* box is checked and another row if the *Four Hour Rental?* box is not checked.

5. Edit the query to add aggregate functions. Because you are looking only for rentals that were for a full day, use the "No" value on the *FourHourRental?* field.
 - a. Click the **View** button [Home tab, Views group] and select the **Design View** option to switch back to *Design* view of the query.
 - b. Click the **Total** row cell for the *FullDayRentalRate* field.
 - c. Click the **drop-down arrow** and select **Sum**.
 - d. Click the **Total** row cell for the *FourHourRental?* field.
 - e. Click the **drop-down arrow** and select **Where**. This causes the *Show* row check box for the *FourHourRental?* field to be deselected.
 - f. Click the **Criteria** row cell for the *FourHourRental?* field and enter **No**. The *IntelliSense* feature in Access may suggest the value of "Now" while you are typing. Press the **Esc** key to hide the list and then tab out of the field. The query window should look similar to Figure 3-87.

Field:	FKBoatID	BoatType	FullDayRentalRate	FourHourRental?
Table:	SDRentals	SailboatFleet	SailboatFleet	SDRentals
Total:	Group By	Group By	Sum	Where
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:				No
or:				

3-87 Query design grid for the summary query with criteria

- g. Click the **Run** button. The query should open in *Datasheet* view and display eight records (Figure 3-88). The *Boat ID* now displays only once since the criteria limits the results only to the full day rentals.
6. Click the **Save** button and save the query as **FullDayRentalsByBoatSummary**.
7. Verify that that query works correctly.


Boat ID	Boat Type	SumOfFullID
1010	Catalina 270	\$895.00
1015	Catalina 270	\$179.00
1146	Hunter 33	\$698.00
1152	Capri 22 Mk II	\$178.00
1168	Hunter 33	\$349.00
1185	Hunter 36	\$389.00
1225	Hunter 36	\$1,556.00
1310	Beneteau 373	\$409.00

Record: 1 of 8 No Filter Search

3-88 Results from completed *SummaryOfFullDayRentalsByBoat* query

- a. Open the *SDRentals* table in *Datasheet* view.
- b. Click the **drop-down arrow** in the *Boat ID* field name cell.
- c. Select the **Sort A to Z** option.
- d. Click the **drop-down arrow** in the *Four Hour Rental?* field name cell.
- e. Select the **Sort Cleared to Selected** option. You can see that *Boat ID 1010* has five full day rentals. From Figure 3-86 you know that the full day rate for that boat is \$179.00 and $5 \times \$179 = \895.00 . This matches the results of your query.
- f. Click the **Remove Sort** button [Home tab, Sort & Filter group].
- g. Close the *SDRentals* table. If prompted, do not save the changes to the table.
8. Save a copy of the query.
 - a. Click the **Save As** button [File Tab].
 - b. Select the **Save Object As** button and then click the **Save As** button.

- c. Replace the suggested name with **FullDayRentalsByBoatSummaryWithParameter**. This second query will allow the **Sailing Club** to enter the date range for the summary query and also will count the number of rentals.

 **Alternate** Save a copy of the query.

- a. Close the *FullDayRentalsByBoatSummaryWithParameter* query if still visible in *Datasheet View*. Right-click the query in the **Navigation** pane, and click **Copy**
 - b. Right-click in the **Navigation** pane and click **Paste**. The **Paste As** dialog box opens. Type **FullDayRentalsByBoatSummaryWithParameter** in the **Paste As** dialog box and click **OK**.
 - c. Double-click the *FullDayRentalsByBoatSummaryWithParameter* query in the *Navigation Pane* to open the query in *Datasheet view*.
9. Edit the query to add additional fields and an aggregate function and parameters.
- a. Click the **View** button [*Home* tab, *Views* group] and select **Design View**.
 - b. Drag the **FullDayRentalRate** field from the *SailboatFleet* table to the fifth column in the query design grid. (Yes, this field is in the query twice.)
 - c. Click the **Total** row cell for this field, click the **drop-down arrow**, and select **Count**.
 - d. Drag the **RentalDate** field from the *SDRentals* table to the sixth column in the query design grid.
 - e. Click the **Total** row cell for this field, click the **drop-down arrow**, and select **Where**. This causes the *Show* row check box for the *RentalDate* field to be deselected.
 - f. Click the **Criteria** row cell of the *RentalDate* field.
 - g. Right-click and select **Zoom**.
 - h. Type **Between [Enter the Start Date] And [Enter the End Date]** in the *Zoom* box to add the two parameters.
 - i. Click **OK**. The query window should look similar to Figure 3-89.

Field:	FKBoatID	BoatType	FullDayRentalRate	FourHourRental?	FullDayRentalRate	RentalDate
Table:	SDRentals	SailboatFleet	SailboatFleet	SDRentals	SailboatFleet	SDRentals
Total:	Group By	Group By	Sum	Where	Count	Where
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:				No		Between [Ente
or:						

3-89 Query window with aggregate functions and a parameter

- j. Click the **Save** button and save the changes to the query.
10. Test the query.
- a. Click the **Run** button.
 - b. Enter **2/1/2017** in the *Enter the Start Date* box of the *Enter Parameter Value* dialog box.
 - c. Click **OK**.
 - d. Enter **2/28/2017** in the *Enter the End Date* box of the *Enter Parameter Value* dialog box.
 - e. Click **OK**. The query should open in *Datasheet view* and display the records shown in Figure 3-90.
 - f. Click the **Save** button to save the changes made to the query.
 - g. Close the query.

Boat ID	Boat Type	SumOfFullID	CountOfFull
1010	Catalina 270	\$716.00	4
1015	Catalina 270	\$179.00	1
1152	Capri 22 Mk II	\$89.00	1
1185	Hunter 36	\$389.00	1

Record: 1 of 4 | No Filter | Search

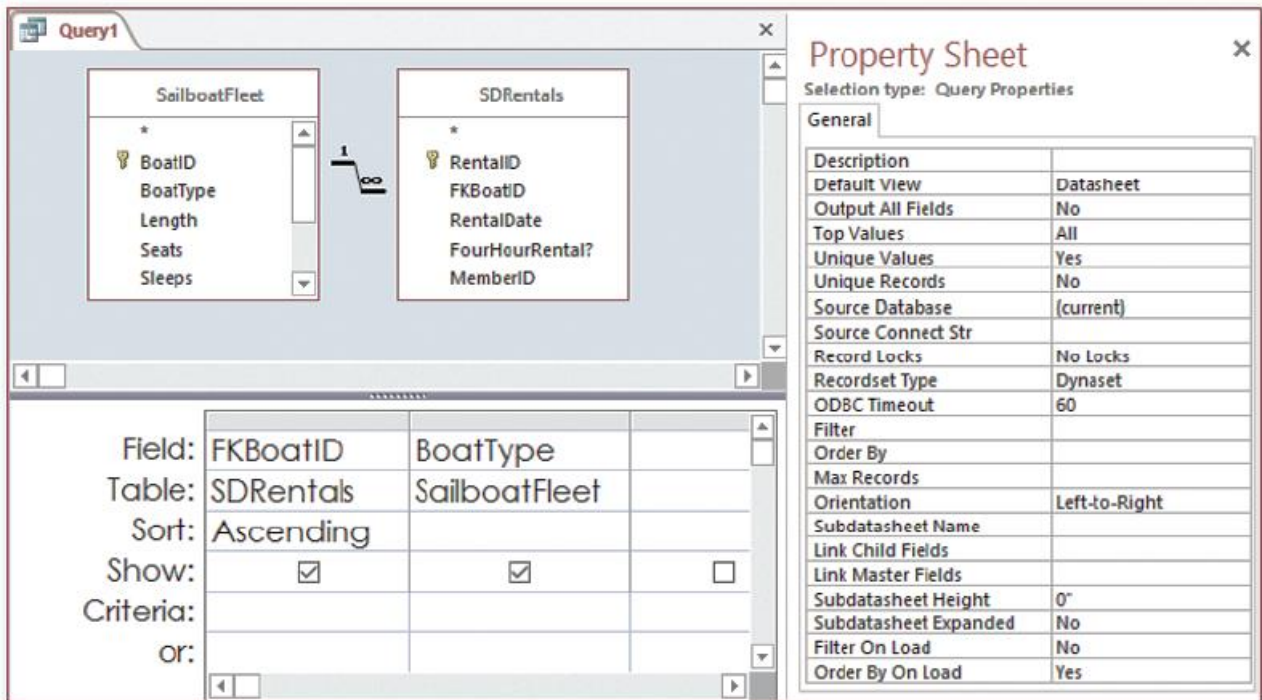
3-90 Query results with *Sum* and *Count* aggregate functions and parameter

11. Review the query.
 - a. Reopen the query in *Design* view. Notice that Access has reordered the position of the fields. The two fields that use the *Where* option on the *Total* row have been moved to the right side of the query design grid. This does not affect the way the query runs.
 - b. Close the query.
12. Create a new query in *Design* view. The Sailing Club wants to find out what boat types have been rented so it can decide whether to adjust pricing or marketing on some of its boat types. If a boat has been rented, a record of that rental exists in the *SDRentals* table.
 - a. Click the **Query Design** button [*Create* tab, *Queries* group] to open the *Show Table* dialog box.
 - b. Select the **SDRentals** table, press and hold the **Shift** key, select the **SailboatFleet** table and click the **Add** button.
 - c. Click the **Close** button in the *Show Table* dialog box.
 - d. Click the **drop-down arrow** in the first *Field* row cell in the query design grid and select **SDRentals.FKBoatID**.
 - e. Click the **Sort** row, click the **drop-down arrow**, and select **Ascending**.
 - f. Click the **second cell** in the *Field* row, click the **drop-down arrow**, and select **SailboatFleet.BoatType**.
 - g. Click the **Run** button [*Query Tools Design* tab, *Results* group] to execute the query. The query should open in *Datasheet* view and display 28 records (Figure 3-91). Notice that in a number of instances the same *Boat ID* displays multiple times, once for each time that boat was rented.
13. Edit the query to display *Unique Values*.
 - a. Click the **View** button [*Home* tab, *Views* group] and select the **Design View** option to switch back to *Design* view of the query.
 - b. Click the **Property Sheet** button [*Query Tools Design* tab, *Show/Hide* group] to open the *Property Sheet*.
 - c. Click anywhere in the *Query Window* so that the *Selection* type in the *Property Sheet* displays *Query Properties*.
 - d. Click the **Unique Values** property box and select **Yes**. The query window should look similar to Figure 3-92.

Boat ID	Boat Type
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1010	Catalina 270
1015	Catalina 270
1015	Catalina 270
1146	Hunter 33
1146	Hunter 33
1150	Capri 22 Mk II
1152	Capri 22 Mk II
1152	Capri 22 Mk II
1152	Capri 22 Mk II
1152	Capri 22 Mk II
1164	Capri 22 Mk II
1168	Hunter 33
1185	Hunter 36
1225	Hunter 36
1225	Hunter 36
1225	Hunter 36
1225	Hunter 36
1225	Hunter 36
1310	Beneteau 373
1401	Capri 22 Mk II
1419	Hunter 33
*	

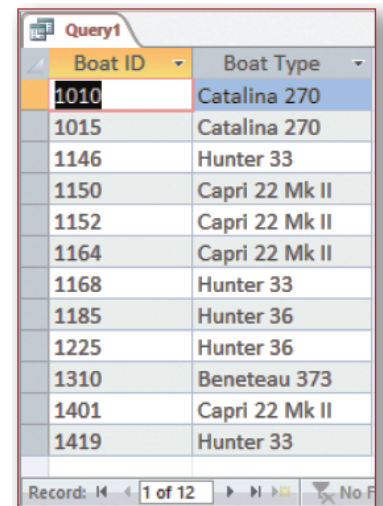
Record: 1 of 28

3-91 BoatID query results

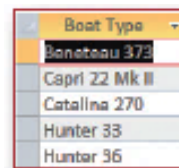


3-92 Set the *Unique Values* property in the *Property Sheet* of the query

- e. Close the *Property Sheet*.
 - f. Click the **Run** button. The query should open in *Datasheet* view and display 12 records (Figure 3-93). Each *Boat ID* now displays only once, but the *Boat Types* are still repeated.
14. Edit the query so the *Boat Type* displays only once. The *Boat Type* is displaying more than once because the *FKBoatID* field is different for each boat.
- a. Click the **View** button [Home tab, Views group] and select the **Design View** option to switch back to *Design* view.
 - b. Click the **Sort** row of the **FKBoatID** field, click the **drop-down arrow**, and select **(not sorted)**.
 - c. Deselect the **Show** row check box for the **FKBoatID** field.
 - d. Click the **Run** button. The query should display the five boat types that have been rented at least once (Figure 3-94.)
 - e. Click the **Save** button and save the query as **BoatTypesRented**.
 - f. Close the query.
15. Close the database.
16. Upload and save your project file.
17. Submit project for grading.



3-93 Query results with repeated *BoatType* values



3-94 Unique records for *BoatType*

Step 2
Upload &
Save

Step 3
Grade my
Project