

Instructor's Answer to Database Case 4 Using Access

FILE: VALUERITE.MDB

This case is useful for illustrating the database concept of concatenation, and for demonstrating how existing queries can be modified and saved as new queries.

1. Create a new database in Access named VALUERITE. Open SOLVEIT.MDB and copy the VALUERITE table. Paste the VALUERITE table (both the data and the structure) into the new database. Close the SOLVEIT database. Alternatively, import the VALUERITE table in SOLVEIT.MDB to the new database. In the VALUERITE Database window, select and open the VALUERITE table. Browse the records.

2. **TASK 1:** Create a new query in Design View based on the VALUERITE table. Drag the Drug_Code, Drug_Name, Supplier, Tabs, and Mg_Per_Tab fields to the design grid. The six classes of drugs for which the government is requiring usage information are: sedatives, analgesics, anti-hypertensives, diuretics, anti-inflammatory drugs, and anti-depressives. These drug classes are: C2, C3, C4, M9, Q1, and Q4. To filter out the unwanted drug classes, we must use the OR operator. In the Criteria cell for the Drug_Code field, type:

C2 or C3 or C4 or M9 or Q1 or Q4, all on the one line.

Alternatively, you can enter each drug code on separate lines down the Drug_Code column with the first criterion entered in the Criteria cell, the second in the or cell, and the rest in the unlabeled cells directly under these two. Each succeeding cell serves as a new OR criterion.

Run the query and view the reduced dynaset. There should now be only 40 (down from 50) records. Return to Query Design View, and in the Sort cell for the Drug_Code field, select Ascending order. Run the query again to see the sorted records. Save the query (e.g.: TASK1) and close it.

3. **TASKS 2 and 3:** Open the TASK1 query in Design View and use the File/Save As command to save it with a new name (e.g.: TASK2). Create a new calculated field to calculate the total Mgs of each drug dispensed per order:

Total Usage: [Tabs]*[Mg_Per_Tab]

Save the changes and run the query to view the results of the calculation. Close the query.

Use the Report Wizard to create a report based on the TASK2 query making the following choices:

- 1) Include all fields. Click Next.
- 2) Group by the Drug_Code field. Click Next.

- 3) Click the Summary Options button.
- 4) Under What summary values would you like calculated?, select the Sum checkbox for the Total Usage field. Click OK.
- 5) Click Next.
- 6) Retain the default layout selection (Stepped) and Portrait Orientation. Click Next.
- 7) Choose any style of your choice and click Next.
- 8) Enter a Report Title (e.g.: Government Drug Usage Report).
- 9) Click Finish.

Access generates the report and displays it in Print Preview. The report groups the drugs by Drug Code, subtotals the mgs dispensed for each drug code, and calculates a grand total of how many mgs of controlled substances were dispensed by ValueRite Pharmacy for the period of months covered by the data in the database. Resize and reposition the controls as necessary in Design View.

Save the changes, print the Government Drug Usage report for Task 3, and close the report.

4. **TASK 4:** Open the TASK2 query in Design View and use the File/Save As command to save it with a new name (e.g.: TASK4). This task requires use of the full record set of the VALUERITE table, so delete the OR statement in the Criteria: cell for the Drug_Code field. Also, delete the Tabs and Mg_Per_Tab fields. (Move the mouse to the thin gray bar at the top of each column (the Column selector) until the pointer changes to a  symbol. Click to highlight the entire column, and then press the Delete key). Save the changes to the query. Run the query to view the dynaset (all 50 records). Close the query.

Use the Report Wizard to create a new report based on the TASK4 query. Make the following choices:

- 1) Include all fields. Click Next.
- 2) Group by Drug_Code. Click Next.
- 3) Sort by Supplier. Click the Summary Options button.
- 4) Under What summary values would you like calculated?, select Sum for Total Usage. Click OK.
- 5) Click Next.
- 6) Keep the Stepped layout and Portrait orientation and click Next.
- 7) Select any style of your choice and click Next.
- 8) Give the report a title (e.g.: Drug Company Report) and click Finish.

The resulting report groups the records according to the Drug_Code and then sorts the records in each group alphabetically by the Supplier name. Subtotals are presented for each drug code representing the total mgs dispensed in each drug category. A grand total for the Total Usage field sums up the total mgs for all drugs dispensed in every drug category by VALUERITE's Pharmacy for the time period covered by the records in the

database to date. Make any necessary resizing and repositioning changes to the report, save the changes, and print the report. Close the report.

5. **TASK 5:** Open the TASK4 query in Design View and use the File/Save As command to save it with a new name (e.g.: TASK5). In the Criteria cell for the Supplier field, type Roche. Save the changes and run the query. The query should display a reduced dynaset of just fifteen records. Close the query.

Open the Drug Company Report in Design View and use the File/Save As command to save it with a new name, TASK5REPORT. Select View/Properties (or click the Properties button on the Report Design toolbar) to open the property sheet for the report. (Make sure it is the property sheet for the entire report *and not* a property sheet for a particular control or a report section.). On the Data tab, click in the Record Source property settings box. Click the list arrow and change the record source to the TASK5 query. Double-click the Control menu icon for the property sheet in top left corner  to close the property sheet.

Save the changes and click the Print Preview button to view the new report. VALUERITE has dispensed A2, G9, P2, and P3 drug products from Roche. Total Usage (the total mgs) dispensed of these drugs is 2,485. Close the report.

6. **TASK 6:** This task can be used either as an exercise for students who have covered data flow diagrams or as a research task for students new to the process. The references given in *Solve It!* provide sufficient detail for even the novice student to produce a serviceable data flow diagram. Students' answers on this task will vary greatly in quality, making it a good means for differentiating between students.

Figure 1 contains a first-level data flow diagram for the pharmacy system using the conventions described in the Laudon and Laudon reference. Items to check include the logic and numbering of processes, data stores, and outputs (i.e.: repeats, sticky label, receipt).