SOLUTIONS MANUAL

THOMSON
COURSE TECHNOLOGY

PROBLEM-SOLVING CASES
IN MICROSOFT ACCESS AND EXCEL
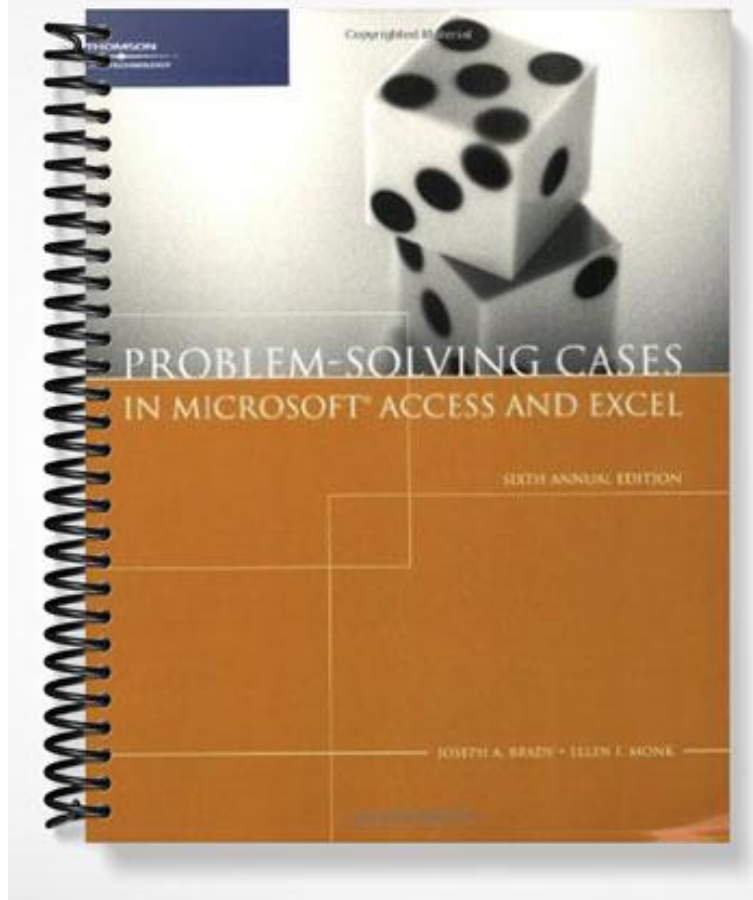
SIXTH ANNUAL EDITION

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Case 2: The Volunteer Vacations

Objectives

- Design a database for a small business that arranges volunteer vacations for college students.
- After this database is successfully designed, implement the relational database using Microsoft Access.
- Populate the database and create a form for registering for a trip and placing a deposit on that trip. Also create three queries: a Select query with a simple criteria, a Parameter query to list students in a particular city, and a Totals query that counts the number of students on each vacation. Finally, create a general report that lists all the remaining payments required, grouped by student.

Specific Teaching Tips

This case requires the student to read a business problem and solve it by designing and implementing a relational database. If an instructor has an advanced class, this case could be a springboard for more sophisticated analysis: How might the business expand? How would the database be changed to accommodate the expansion? What work would need to be done to migrate the operation to a Web site?

Common Student Mistakes

- There are not enough tables in the database design
- There are too many tables in the database design
- Tables in the database design do not have the proper fields in them
- The fields are not the proper data type
- Redundant and unnecessary data is created
- Students haven't made up enough data when implementing the database
- Tables are not linked properly in the query, or not linked at all (this can be problematic for Access 2007 since the linkage doesn't automatically appear)
- In the Parameter query, students just type in a criteria instead of asking for an input
- In the Summation query, students try to use sum instead of count
- Trying to make the report without making a query first
- Report is not grouped properly on Last Name
- Report design is not adjusted properly in terms of headings
- Other aspects of the appearance of the report are not good

Refer to the end of Tutorial B for common pitfalls.

Suggested Grading Guidelines (in order of importance or weight)

Assignment 1
1. An entirely wrong design of a table, e.g., all the fields in two tables, not splitting them up into three, hence a missing table – 30%
2. An extra table that is unnecessary – 10%
3. An extraneous field in a table, or leaving out some field that is necessary – 5%
4. Making a field the wrong data type – 3%
5. Typos – 1%

Assignment 2A
1. Make sure all the tables are created properly. A data type error might be worth 5%.
2. Make sure tables are populated correctly. Any typographical errors might be worth 2%.

Assignment 2B
1. There are five deliverables in assignment 2B: one form, three queries, and one report. The report is almost worth two deliverables because of the query. I recommend counting each deliverable as about 15% of the total grade.
2. For the form, if missing, take off 15%.
3. For query 1, if the criteria is missing, take off 10%.
4. In that same query, not bringing down the correct fields or showing the wrong fields would also be worth 5%.
5. For query 2, if this is not a Parameter query, take off 10%.
6. For query 3, they should be using count instead of sum. If they use sum, take off 5%.
7. The column heading, Number of Students, should be changed to look neat. If not, take off 5%.
8. The output should be sorted descending on Number of Students. If not, take off 5%.
9. For the Report query, make sure there is a proper calculated field. If not, take off 10%.
10. In the report, make sure it's grouped by Last Name. If not, take off 10%.
11. In the report, there needs to be a query for a basis. If not, take off 5%.
12. Make sure the headings and all data are visible. If not, take off 2%

The implemented database in this case can be found at www.course.com.

One suggested database design solution is:

Students

Field Name	Data Type
Student ID	Text
Last Name	Text
First Name	Text
Address	Text
City	Text
State	Text
Zip	Text
Telephone	Text
Email	Text

Trips

Field Name	Data Type
Trip ID	Text
Destination	Text
Purpose	Text
Price	Currency
Meals Included	Yes/No
Start Date	Date/Time
End Date	Date/Time

Registration and Deposit

Field Name	Data Type
Trip ID	Text
Student ID	Text
Deposit Paid	Currency