

10. The data tier does which of the following?
 - a. Updates data
 - b. Returns data
 - c. Filters data
 - d. All of the above

True/False

1. Log files are important for successful recovery of information.
2. Data is serialized to convert the data type to string.
3. After updates have been completed, all backup copies of data can be destroyed.
4. Dependency injection is necessary to keep the tiers (interface, business rules, and data) independent of each other.
5. SQL script files update all records including those that have not changed.

Short Answer/Essay

1. Explain the process used to correct data files that have been corrupted.
2. Why is data stored in a database usually more secure than data stored in a text file?
3. Compare and contrast the methods used to update XML data to the methods used to update MySQL data. Which is more efficient? Why?
4. When should an e-mail be sent to the system administrator when data is being updated? What should this e-mail contain? What should it not contain? Why?
5. How can a system administrator determine which data file is the last non-corrupted version?

Projects

1. Adjust the code from Chapter 4 project #1 or #2 to include backup and recovery ability.
2. Create a complete storage (XML or JSON format) and a backup and recovery system for one of the previous projects you have completed. The system should include the ability for the users to limit the number of recovery files, the ability to adjust contents of a selected file (update, insert, and delete), and the ability to execute the file against the most recent valid data. When the process is complete, any corrupted files should automatically be removed. The system should also keep its own log file to indicate when changes have occurred.

Term Project

1. Update the ABC Computer Parts Inventory program to include storage of the data (XML or JSON format) and complete backup and recovery capabilities. The application should include a change log to indicate any data changes. Additional support programs should be included to allow for easy recovery of any corrupted data. Your complete application should use logic similar to the examples shown in this chapter.