14.9.2 Review Questions

1. What problems do database management systems solve?
2. What is the syntax for a SQL SELECT statement?
3. What does joining two tables accomplish?
4. What are composite keys?
5. Name two MySQL management applications. Compare and contrast them.
6. Discuss the trade-offs with using a database-independent API such as PDO in comparison to using the dedicated mysqli extension.
7. Why must you always sanitize user inputs before using them in your queries?
8. Describe the role of indexes in database operation.
9. Discuss the advantages and disadvantages of storing BLOBs in a database.
10. Describe how relational databases differ from NoSQL databases. List one advantage of each.

14.9.3 Hands-On Practice

PROJECT 1: **CRM Admin**

DIFFICULTY LEVEL: Beginner

HANDS-ON EXERCISES

Project 14.1

Overview

Demonstrate your ability to retrieve information from a database and display it. The results when finished will look similar to that shown in Figure 14.35.

Instructions

1. You have been provided with a PHP page (**chapter14-project1.php**) along with various include files.
2. You will need to retrieve information from two tables: Employees and EmployeeToDo. You will need to display the first and last name from every record in the Employee table within an unordered list. The data should be sorted by the LastName field.
3. Each employee name in the list should be a link back to the same page (**chapter14-project1.php**), but with the EmployeeID field appended via a query string parameter.
4. When a request is received with a query string, then the page will display additional information within the Employee Details <div>. In the Address tab group, display the rest of the employee record information. In the TO DO tab group, display the related records from the EmployeeToDo table for that EmployeeID. Sort the EmployeeToDo data by the DateBy field.

Test

1. Test the page. Verify the links works as expected and that the data is correctly sorted.
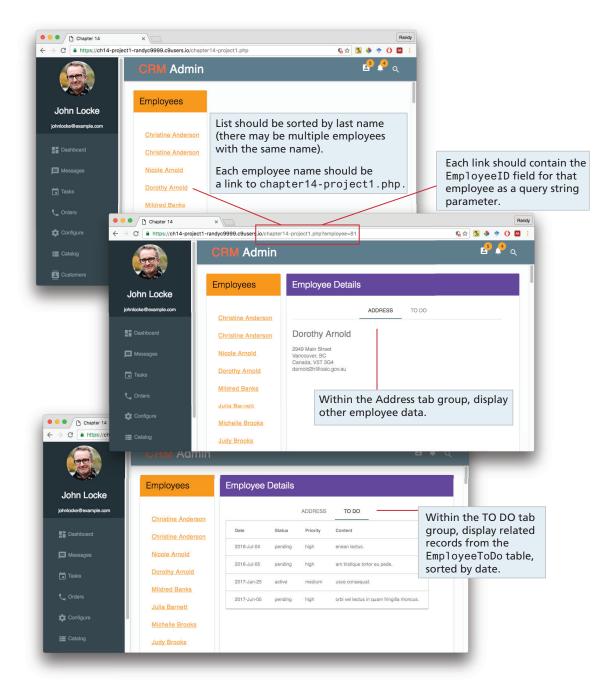
FIGURE 14.35 Completed Project 1

The following callout notes appear on the figure:

List should be sorted by last name (there may be multiple employees with the same name).

Each employee name should be a link to chapter14-project1.php.

Each link should contain the EmployeeID field for that employee as a query string parameter.

Within the Address tab group, display other employee data.

Within the TO DO tab group, display related records from the EmployeeToDo table, sorted by date.