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## Introduction to SQL

A nice, gentle introductory chapter, this chapter begins by looking at databases in terms of what they are and why and when you want to use them. Then the chapter turns to SQL and discovers how it links in with databases and how it can be useful. After tackling the basics of SQL and how it works in theory, you examine how to use it to create a database. This chapter also walks you through creating the structure of the example database used throughout the book.

By the end of the chapter, you should understand how a database enables you to efficiently organize and retrieve the information you want, as well as how to create a fully functional database, all ready and waiting to accept add data. But before diving headlong into writing lines of SQL code, it's helpful to know a little bit of background about databases.

### A Brief History of Databases

Modern databases emerged in the 1960s thanks to research at IBM, among other companies. The research mainly centered around office automation, in particular automating data storage and indexing tasks that previously required a great deal of manual labor. Computing power and storage had become much cheaper, making the use of computers for data indexing and storage a viable solution. A pioneer in the database field was Charles W. Bachman, who received the Turing Award in 1973 for pioneering work in database technology. In 1970, an IBM researcher named Ted Codd published the first article on relational databases.

Although IBM was a leader in database research, Honeywell Information Systems, Inc., released a commercial product in 1976 based on the same principles as the IBM information system, but it was designed and implemented separately from IBM's work.

In the early 1980s, the first database systems built upon the SQL standard appeared from companies such as Oracle, with Oracle Version 2, and later SQL/DS from IBM, as well as a host of other systems from other companies.

Now that you have a brief idea of where databases came from, you can turn to the more practical task of what databases are and why and when to use them.