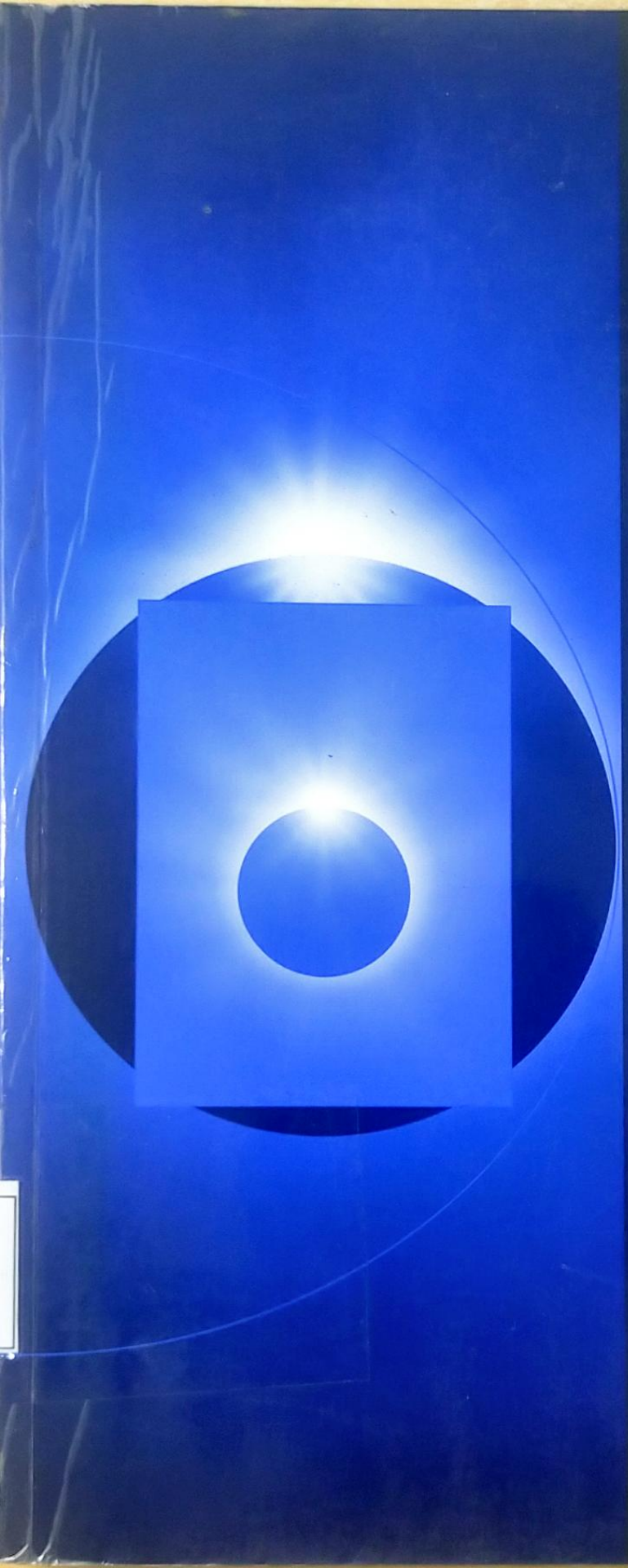

ORACLE SQL
AND INTRODUCTORY
PL / SQL

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PREECE

Oracle SQL and Introductory PL/SQL

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Brief Contents

Contents

Preface

Intended Audience

This book provides basic coverage of Oracle's SQL and an introduction to Oracle's PL/SQL. It is intended for use in a second or third database course. Students are expected to be familiar with the fundamentals of database design and general usage prior to the beginning of the course.

The Method

The focus of the book is on the most commonly used SQL statements. The format is similar to that used for teaching math in that for each new statement, a concept is explained, general syntax is presented, and examples are solved. By this point in their college careers, there is usually no need for students to type examples verbatim out of a book, so that is not the intent here. Instead, students should read each chapter and then practice on their own by writing solutions to the exercises at the end of the chapter. Finally (and most importantly), computer work should be completed as assigned by the instructor.

Key Features

Overview of Example Database Creation

Two small databases are used in the examples. One is for a fictitious medical clinic, and the other is for a fictitious movie rental business. Specific entity-relationship (E-R) diagrams, table structures, and table contents are listed later in this preface and again in Appendix B.

The SQL* Plus tool for Oracle 9i was used for all examples. SQL* Plus is a command-line tool used to interact with the Oracle server. The user types a command at the prompt (there is no GUI) and presses Enter. Then the command is executed by the server, and the results are returned to the user's screen.

Typed commands may be saved to files with SQL extensions (called script files) for modification or for later use. A text editor (such as Notepad) is used to create or modify these scripts.

The SQL* Plus tool was also used for the initial creation of the tables, and an overview of that process is included here.

First, the user ID *lpreece* was created by the author's departmental database administrator, allowing the author to access the department's Oracle 9i server. The SQL* Plus tool was then used to connect to the server with that user ID. Tables were created by typing CREATE TABLE commands at the SQL* Plus prompt. Data values were placed in the tables by using INSERT commands. All additions were made permanent by using the COMMIT command. Specific script files for creating and filling the tables used in the example databases are included at the book's website.

The Example Databases

The first database represents a small medical clinic where each patient has one doctor, and each doctor may see many patients. Due to the large number of attributes associated with the patient entity, the original entity has been divided into two tables: PATIENT, which includes data needed for making appointments, and BILLING, which includes data needed for customer billing. All doctor-related information is maintained in one table, DOCTOR. The specific E-R diagram and table contents are shown here.