

Intermediate Applications of SQL

What You Will Learn.....	1
Writing SELECT Statements.....	2
Using the SELECT Command.....	2
Specifying Criteria.....	3
Sorting Data.....	3
Specifying Multiple Criteria.....	4
Using Aggregate Functions.....	6
Eliminating Duplicate Values: Using the DISTINCT Keyword.....	7
Summary of the SELECT Statement: Order of Clauses.....	8
Exercise 1.....	9
Creating Multiple Table Joins.....	10
Understanding Primary Keys and Foreign Keys.....	10
Guidelines for Creating Joins.....	11
Creating Inner Joins.....	11
Creating a Left Outer Join.....	13
Creating a Right Outer Join.....	13
Creating a Full Outer Join.....	14
Creating Cross Products (Cartesian Products).....	16
Exercise 2.....	18
Exercise 3.....	19
Performing More Advanced Joins.....	20
Using Aggregate Operators with Joins.....	20
Joining More Than Two Tables.....	21
Creating Views.....	24
Why Use a View?.....	24
Using the CREATE VIEW Command.....	24
Finding Information about Views.....	26
Modifying a View.....	27
Deleting a View.....	27
Exercise 4.....	28
Working with Date Data.....	30
Understanding Date Data Types.....	30
Inserting Date and Time Data.....	30
Changing the Display of Dates.....	31
Querying Date Data.....	32
Exercise 5.....	35
Modifying the Structure of a Table: Using the ALTER TABLE Command.....	36
Adding a New Column.....	36
Adding a Column Constraint.....	37
Changing a Column's Data Type.....	38

Deleting Columns	38
Renaming a Column	39
Working Around the Limitations of ALTER TABLE.....	39
Copying Data Between Tables.....	40
Copying Data into an Existing Table.....	40
Copying Data into a New Table.....	42
Appendix A: Class Database Tables.....	43
Appendix B: Summary of SQL Commands	52
Appendix C: Using the CONVERT Function to Convert Date Data	55
Appendix D: Solutions to Exercises	56