Chapter 1: Application Environment: Introduction

You will learn:

- Approaches to designing database systems.
- Components of an Oracle database.
- Use of OO in developing Oracle databases.
- Physical design of tables.
- Architecture of indexes and guidelines for determining the type of index to use.
- Use of triggers in database systems.

Chapter 2: Database Design

You will learn:

- Use of decomposition in designing databases.
- Normalization techniques.
- Logical database design..

Chapter 3: Preparing the Database

You will learn:

- Database creation techniques and issues.
- Export utilities and alternatives.
- Import utilities and performance issues.
- SQL Loader utility.
- Determining the appropriate utility to use.

Chapter 4: Tuning

You will learn:

- System monitoring techniques.
- Tuning SQL statements.
- Tuning stored procedures.
- Problems with tuning.
- Parameters that effect performance.
- Predicates that cause performance issues.
- Testing for performance.

Chapter 5: PL/SQL Programming Techniques

You will learn:

- Bulk Bind for improving performance.
- ROWID in iterative processing for improving performance.
- Improving performance by minimizing program iterations.
- PL/SQL new features.
- Data types for improving execution time.
- Pinning objects.
- Modifying the init.ora file.
- Executing a profiler.
- Global Temporary table - creation.

Chapter 6: Additional Performance Features

You will learn:

- Coding for client/server.
- Creating and using stored procedures.
- When not to use PL/SQL.
- Oracle 9i – New features for improving performance.

Chapter 7: Tuning Joins and Subqueries

You will learn:

- Parts of the SQL that should be tuned.
- Different types of joins.
- Overriding the optimizer.
- Table scan versus index usage.
- How to determine which predicates use an index.
- Multi table access issues.
- Calculating the filter factor.
- Ascertaining which tables are the driving tables
- Finding table and index statistics.
- System catalog for tuning.
- Cost base optimizer.
- Optimization hints.

Chapter 8: Performance Tuning, explain tkprof

You will learn:

- SQL trace – enabling.
- Relationship between Disk IO, memory and CPU time.
- Identifying bad SQL.
- Tips on coding SQL.
- EXPLAIN statement.