



CENTRAL PIEDMONT COMMUNITY COLLEGE

CORPORATE & CONTINUING EDUCATION

Course Number: DPT7976
Course Title: Oracle 10g: Intro to SQL
Course Hours: 40 Hours

Last Revised On: 7/3/08

Description:

This course introduces Oracle Database 10g technology and the relational database concepts of the powerful SQL programming language. This course will provide students with the essential SQL skills of querying the database, the meta data and creating database objects. In addition, the course also delves into advanced querying and reporting techniques, data warehousing concepts and manipulating large data sets in different time zones.

Objectives:

- Start up and shut down an Oracle instance and database
- Use Globalization Support features
- Manage users, privileges, and resources
- Manage table spaces, segments, extents, and blocks
- Manage Oracle database files
- Create an operational database

Content:

1. Oracle Architectural Components
 - Understanding the physical structure
 - Understanding the memory structure
 - Understanding the process structure
 - Understanding the logical structure
 - Outlining the stages of an SQL statement
 - Defining an Oracle Database, the Oracle server, and the Oracle Instances
2. Getting Started with the Oracle Server
 - Identifying database administrative tools
 - Identifying the features of the Universal Installer
3. Managing an Oracle Instance
 - Creating, managing, and using initialization files: PFILE and SPFILE
 - Identifying the various states of starting an instance
 - Identifying the various options available to shutdown an instance



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- Monitoring Alert and Trace files
4. Creating a Database
 - Using the Database Configuration Assistant to create a database
 - Creating a database manually
 5. Using the Data Dictionary
 - Identifying the uses and contents of the data dictionary
 - Using the data dictionary to obtain information about the database
 6. Maintaining the Control File
 - Explaining the uses of the control file
 - Listing the contents of the control file
 7. Maintaining Redo Log Files
 - Explaining the use of online redo log files
 - Explaining the structure of online redo log files
 8. Managing Tablespaces and Data Files
 - Outlining the database storage hierarchy
 - Identifying the types of table spaces
 9. Storage Structure and Relationships
 - Outlining the various segment types and their uses
 - Outlining the storage clause precedence
 10. Managing Undo Data
 - Understanding the purpose of undo data
 - Managing undo data
 11. Managing Tables
 - Outlining the various Oracle data types
 - Explaining the two types of ROWID formats
 12. Managing Indexes
 - Classification of types and uses indexes
 - Creating b-tree and bitmap indexes



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13. Maintaining Data Integrity
 - Identifying the various types and states of constraints
 - Implementing data integrity constraints
14. Managing Password Security and Resources
 - Managing passwords using profiles
 - Administering profiles
15. Managing Users
 - Defining database schema and objects
 - Creating new database users
16. Managing Privileges and Roles
 - Identifying system and object privileges
 - Granting and revoking privileges
17. Using Globalization support
 - Choosing character set and national character set for a database
 - Specifying the language-dependent behavior

Prerequisites:

- Experience with databases recommended.

Method of Instruction:

- Lecture, demonstration and hands-on use.

Evaluation:

- Exam: NO
- Class participation: YES
- Demonstration of Skills: YES