

Oracle Basics

Lesson 00:

DBMS SQL



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Document History

Date	Course	Software Version	Developer / SME	Change Record Remarks
	Version No.	No.		
13-Nov-08	1	9i	Rajita Dhumal	Content Creation
14-Nov-08	1.1	9i	CLS team	Review
14-Jan-10	1.2	9i	Anu Mitra	Review
14-Jan-10	1.2	9i	Rajita Dhumal, CLS Team	Incorporating Review comments
25-Apr-11	2	9i	Anu Mitra	Integration refinements
17-May-13	2.1	9i	Hareshkumar Chandiramani	Courseware refinements
21-Apr-15	2.2	9i	Kavita Arora	Courseware refinements

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Date	Course	Software Version	Developer / SME	Change Record Remarks
	Version No.	No.		
Apr-2018	2.3	9i	Vaishali Srivastava	Courseware refinements as per Cloud TOC

Course Goals and Non Goals

Course Goals

- To understand basic DBMS, and use SQL commands.

Course Non Goals

- Nothing Specific.

Pre-requisites

A proficiency level in familiarity with Windows.

Intended Audience

Software Programmers
Software Analysts

Presentation Title | Author | Date

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Day Wise Schedule

Day 1

- Lesson 1: Introduction to Database
- Lesson 2: Basics of SQL
- Lesson 3: Data Query Language
- Lesson 4: Aggregate (Group) Functions
- Lesson 5: SQL (Single-row) functions
- Lesson 6: Joins

Day 2

- Lesson 6: (contd) Sub-queries
- Lesson 7: Database Objects
- Lesson 8: Data Manipulation Language
- Lesson 9: Transaction Control Language

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Lesson 1: Getting Started with Database

- 1.1: Introduction to Database
- 1.2: Characteristics of DBMS
- 1.3: Data models
- 1.4: Relational DBMS
- 1.5: Database Administrator

Lesson 2: Basics of SQL

- 2.1. The SQL Language
- 2.2. Rules for SQL Statements
- 2.3. Standard SQL Statement Groups
- 2.4: Logging to Oracle Server

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Lesson 3: Data Query Language

- 3.1: The SELECT statement
- 3.2: The WHERE and AS clauses
- 3.3: Mathematical ,Comparison and Logical operators
- 3.4: The DISTINCT clause
- 3.5: The ORDER BY clause
- 3.6: Tips and Tricks in SELECT Statements

Lesson 4: Aggregate (Group) functions

- 4.1: The Group function
- 4.2: GROUP BY & HAVING clause
- 4.3: Examples of GROUP BY and HAVING clauses

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Lesson 5: SQL (Single-row) functions

- 5.1: SQL functions
- 5.2: Number functions
- 5.3: Character functions
- 5.4: Date functions
- 5.5: Conversion functions
- 5.6: Miscellaneous functions
- 5.7: Tips and Tricks

Lesson 6: Joins and Sub-queries

- 6.1: Joins
 - 6.1.1: Oracle Proprietary Joins

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Lesson 6: Joins and Sub-queries (continued)

- 6.2: Sub-query
- 6.3: Tips and Tricks

Lesson 7: Database Objects

- 7.1: Basic Data Types
- 7.2: Data Integrity
- 7.3: Examples of CREATE TABLE
- 7.4: Examples of ALTER TABLE
- 7.5: Database Objects
- 7.6: Index
- 7.7: View
- 7.8: Deleting Database Objects
- 7.9: Tips and Tricks

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Lesson 8: Data Manipulation Language

- 8.1: Adding Data
- 8.2: Removing Data
- 8.3: Modifying Data

Lesson 9: Transaction Control Language

- 9.1: Introduction to Transactions
- 9.2: Statement Execution and Transaction Control
- 9.3 Commit Transactions
- 9.4 Rollback Transactions

References

RDBMS Concepts - A Primer

- <http://safari.oreilly.com>

Introduction to Database Systems; by C.J.Date

Relational Database Theory; by Atzeni, De Antonellis

Next Step Courses (if applicable)

Oracle PL/SQL

Other Parallel Technology Areas

MS-Access
SQL Server
DB2