DBMS And SQL

Capgemini

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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Course Goals and Non Goals

Course Goals
- To understand basic DBMS, and use SQL commands.

Course Non Goals
- Nothing Specific.

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Pre-requisites

A proficiency level in familiarity with Windows.

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Intended Audience

Software Programmers

Software Analysts

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Day Wise Schedule

Day 1

- Lesson 1: Introduction
- Lesson 2: Understanding Basic SQL Syntax
- Lesson 3: querying Data with the SELECT Statement

Day 2

- Lesson 4: Filtering Results with ORBER BY And GROUP BY
- Lesson 5: Matching Different Data Tables wit JOINs
- Lesson 6: Creating Database Tables

Presentation Title | Author | Date

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Lesson 1: Introduction

– Relational Model

Lesson 2: Understanding Basic SQL Syntax

– Basic SQL Commands - SELECT
– Basic SQL Commands - INSERT
– Basic SQL Commands – UPDATE
– Basic SQL Commands – DELETE

Lesson 3: Querying Data with the SELECT Statement

– The SELECT List
– SELECT List Wildcard (*)
– The FROM Clause
– How to Constrain the Result Set
– DISTINCT and NOT DISTINCT

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Lesson 4 : Filtering Result with the Where Clause

- WHERE Clause
- Boolean Operators
- The AND Keyword
- The OR Keyword
- Other Boolean Operators BETWEEN, LIKE, IN, IS, IS NOT

Lesson 5 : Shaping Result with ORDER BY And GROUP BY

- ORDER BY
- Set Functions
- Set Functions And Qualifiers
- GROUP BY
- HAVING Clause

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Lesson 6 : Matching Different Data Tables with JOINs

- – CROSS JOIN
- – INNER JOIN
- – OUTER JOINs
- – LEFT OUTER JOIN
- – RIGHT OUTER JOIN
- – FULL OUTER JOIN
- – SELF JOIN

Lesson 7 : Creating Database Tables

- – CREATE DATABASE
- – CREATE TABLE
- – NULL Values
- – PRIMARY KEY
- – CONSTRAINT
- – ALTER TABLE
- – DROP TABLE

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References

RDBMS Concepts - A Primer

- http://safari.oreilly.com

Introduction to Database Systems; by C.J.Date

Relational Database Theory; by Atzeni, De Antonellis

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Next Step Courses (if applicable)

Oracle PL/SQL

Other Parallel Technology Areas

MS-Access

SQL Server

DB2

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