

De Anza College - Syllabus for Introduction to Oracle SQL - CIS 64b

Important Links

<http://catalyst.deanza.edu> -

Login instructions are available on the site.

Department:

CIS

Course/Section:

Introduction to SQL (CIS -064B)

Location and Schedule

LIVE LECTURES:

Attend online using CCCConfer from 7am to 9am. Lectures are recorded and made available for replay.

Rest of the class is online.

Office hours

Location - F51e - Mon/Wed - 1:00pm to 3:00 pm. You can also call me at 408 864 5566 during my office hours

Faculty Information

Sukhjit Singh

phone: 408 864 5566

email: singhsukhjit@fhda.ed

Course description

Introduction to Oracle SQL (Structured Query Language), DML (Data Manipulation Language) processing techniques, DDL (Data Definition Language) techniques, selecting and sorting data, joins, SQL functions, Oracle objects, Oracle data processing concepts to maintain large database systems

Prerequisites

Computer Information Systems 15BG or 26A and CIS 64a.

Advisory: English Writing 100B and Reading 100 (or Language Arts 100, or English as a Second Language 172 and 173).

Grading System for this course

For Letter Grade:

Grade: A+ assigned with 97% or higher

Grade: A assigned with 93% or higher

Grade: A- assigned with 90% or higher

Grade: B+ assigned with 87% or higher

Grade: B assigned with 83% or higher

Grade: B- assigned with 80% or higher

Grade: C+ assigned with 77% or higher

Grade: C assigned with 73% or higher

Grade: D+ assigned with 70% or higher
Grade: D assigned with 63% or higher
Grade: D- assigned with 60% or higher
Grade: F assigned with 0% or higher
For Pass/No Pass:
Grade: Credit assigned with 70% or higher
Grade: No Credit assigned with 0% or higher
Incomplete
Audit
Withdrawal

Grading

Final - 40% of the grade
Labs - 30% of the grade
Midterm - 30% of the grade

Assignment Due dates

Programming Assignment 1 1/18/2014
Programming Assignment 2 1/25/2014
Programming Assignment 3 2/1/2014
Programming Assignment 4 2/8/2014
Programming Assignment 5 2/15/2014
Midterm 2/18/2014 7am to 8:30am online
Programming Assignment 6 3/1/2014
Programming Assignment 7 3/8/2014
Programming Assignment 8 3/22/2014
Final 3/25/2014 7am to 8:30am online

Class Topics

Module

Covered by Week 1

Oracle Architecture and Basics

Week 2

Basic Select Statement

Week 3

Joins

Week 4

SQL Functions, Group By and Having Clause

Week 5

Transaction Nuts and Bolts and other Misc Stuff

Week 6

DB Theory and Normalization

Week 7

Creating Tables

Week 8

Database Objects and Indexes

Week 9

Database Utilities

Week 10

Database Security

General information

Course description

Advisory (per catalog):

English Writing 100B and Reading 91 (or Language Arts 100), or English as a Second Language(per catalog).

CIS 50A, 50B, or 60 recommended.

Prerequisite: CIS 64A

Goals: Upon completion of the course, the student will be able to:

- A. Understand the basic features of Databases
- B. Write basic SQL statements to Restricting/Sorting Data
- C. Use Single-row functions
- D. Use Joins to get data from multiple tables
- E. Aggregate data and write subqueries
- F. Format Output and write DML statements
- G. Create Database Objects
- H. Use different levels of user access and variables
- I. Use Control Structures, Composite Datatypes
- J. Use Cursors
- K. Include Exception Handling in their SQL code

My Comments

This course is taking a deeper approach in helping you understand Oracle SQL. (However this might make you a better DBA). We get into Oracle Internals and you will have a better appreciation of the subject matter, if you have taken the background courses.

As you will see below, my focus is on Oracle's approach for creating an RDBMS. You will always have the SQL manual for reference " but the focus of this class is for a developer to know the inside Oracle so well, that they can help a DBA to perform their job better.

Get ready to see databases in a whole new way.

Course Structure

Lecture hours in schedule are about 3 hours. Two way discussion on subject material is highly encouraged. You should spend 6 - 10 hours per week to be able to finish your lab assignments. Attempt as many problems as you can in the back of the chapters from your text book. Team up with peers in your class but submit your own work (It will add to your learning.)

Required Accounts:

You will need an account on:

- a. De Anza's Oracle Database
- b. <http://otn.oracle.com>
- c. unix acct to access database remotely
- d. windows acct to access database from the lab.

Required Text

#1

ISBN-10: 0321444434

ISBN-13: 978-0321444431

SQL Queries for Mere Mortals®: A Hands-On Guide to Data Manipulation in SQL
(2nd Edition) [Paperback]

John L. Viescas (Author), Michael J. Hernandez (Author)

#2

ISBN-10: 0596518846

ISBN-13: 978-0596518844

SQL in a Nutshell (In a Nutshell (O'Reilly)) by Kevin Kline, Brand Hunt and Daniel Kline

Attendance (applicable to on ground section)

Your attendance is expected in all lectures. You do not have to call me with an absent excuse, if you are going to be absent from the class

Withdrawing

Once you are added to the class it is your responsibility to withdraw. I will not drop you from the class. The earned grade will be assigned at the end of the quarter.

Adding the class and Late Adds

At Instructor's discretion you may be assigned an addcode. you should add the

class within normal dates provided in academic calendar on De Anza's website. If you do not add the class, during the scheduled time, no late adds will be processed by instructor.

Academic Dishonesty

You are encouraged to discuss the ideas presented in the class. Copying or Cheating of work will result in zero grade for that assignment and may result in a failing grade. Basically I cannot tolerate cheating. You must work your solutions independently and all assignments and tests should be your own original work.

Lab Assignment Submission format

(Please follow - This is important)

If instructions are not followed assignments will be returned ungraded and late penalty will be assessed when they are turned in.

On the lab assignment header, you should have the following information

Oracle SQL

Lab Assignment #

Your Name

Last four digits of your Student ID #

Due date

Date Handed in

Pl. submit your source code in a .sql file and test runs in a .txt by email to cislabs05@gmail.com. Whenever sending more than one file as attachment, pl. be sure to zip all the necessary files.

Lab Assignment Grading Due dates will be provided on the calendar. Assignments turned in late will earn a maximum of 50% credit. No work will be accepted after the last lecture day.

For my classes reading the text before class is highly recommended.

Class Schedule

Week # SQL Language - Database Concepts

Week 1 Oracle Server Architecture. - Role of Databases. Introduction to the language. Foundation

Week 2 Selecting Restricting and Sorting Data - Set Theory, Query Processor and Oracle Optimizer.

Week 3 Single Row Functions and Joins,

Week 4 Multiple Row Functions, Subqueries, Formatted Output.

Week 5 DML Statements Transaction Mgmt. Database Locking and Read Consistency.

Week 6 DDL Statements (Create, Alter) " Midterm - Constraints, Partitioned

Objects, IOTs, Clusters,

Week 8 Views, Sequences, Indexes, Synonyms - Direct Load Insert

Week 9 DDL Statements (Rename, Truncate, Drop)

Week 10 Users, Roles and Privileges - Oracle Security

Week 11 Database Recovery. Distributed Computing and Oracle, Advanced Queuing.

Week 12 Final

Installing Oracle on your home computer (NOT RECOMMENDED FOR THIS COURSE)

You can download latest version from Oracle's Website. You may download Oracle Personal Edition or Enterprise Edition using <http://otn.oracle.com/>.

PS - I cannot provide installation help on Oracle Server. Pl. read installation instruction on Oracle's website. If you have trouble installing Oracle, pl. get an account on our server in Lab and access it remotely.

FAQ's (Frequently Asked Questions)

How to get an account on Oracle Server in Lab?

Email me you preferred login id and password and I will setup an account for you.

How to access Oracle Server remotely?

To access your Oracle account remotely, you must have a UNIX Login ID and password. Additionally, you should have an Oracle Account.

1. Login to UNIX by starting a secure connection using ssh or putty and access the following server address

voyager.deanza.edu

2. Once you get the login prompt, type your email address and password.

3. After you have successfully logged in then type

sqlplus

at the prompt.

4. Now type your Oracle Login ID and password provided to you by me.

How to access Oracle Account from ATC Lab?

To access your Oracle account from ATC Lab, you must have a Windows Login ID and password. Additionally, you should have an Oracle Account.

1. Login to Windows station in the lab.

2. Once you get the login prompt, type your email address and password.

3. After you have successfully logged in then find the Oracle Menu and launch SQLPlus application

4. Now type your Oracle Login ID, password and SID provided to you by me.

Recommendations for reference Texts

Oracle SQL Manuals for Oracle 11g or latest version from otn.oracle.com.

Oracle Server Concepts for Oracle 11g or latest version from otn.oracle.com

