Syllabus - CIS 64B @ De Anza College

Introduction to SQL

Live Lectures:

Attend online on Tuesday and Thursday from 9:00 am to 10:00 am starting Jan 5th to March 17th. Details on attending are emailed to students. Recordings are made available for replay - so you can grasp concepts.
You are encouraged to ask questions during live lectures.

Office hours

Location - F51e - Mon/Wed - 1pm to 2:50pm. You can also call me at 408 864 5566 during my office hours.

Faculty Information

Sukhjit Singh   phone: 408 864 5566   email: singhsukhjit@fhda.edu   Office Location: F51e

Requisites: None

Advisory:

English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 64A.

Hours:

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

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.

Class Topics

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 anbd Bolts and other Misc Stuff

Week 6 Midterm

Week 7

DB Theory and Normalization

Week 8

Creating Tables

Week 9

Database Objects and Indexes

Week 10

Database Utilities

Week 11

Database Security

Week 12 - Final

Advisory (per catalog):

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

Two way discussion on subject material is highly encouraged during lectures. You should spend 12 hours per week to be able to finish your lab assignments and studying for the class.

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:

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)

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:

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. You can either attend the live lecture or recordings of lectures.

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.

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

Grading System:

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

Assignments Due Dates:

You will be assigned 8 to 10 assignments during the quarter. Assignment details can be found on the Assignment page.

Midterm and Final dates can also be found on Assignment page

Methods of Evaluating Objectives

One or two midterm examinations requiring students to write code applying topics covered in the lectures and reading.

Final examination requiring students to write code applying topics covered in the lectures and reading.

Evaluation of programming assignments, based on correctness, documentation, code quality, and test plan executions.