

# SQL Programming for Data Analysis



**Where:** Cabrillo College (Aptos, Santa Cruz)

**When:** June 19, 2017 Thru June 23, 2017

**Target Audience:** Instructors who want to learn about the SQL programming language and deliver a course to support their Database, Data Analytics, or Business Analytics programs. And for those who would like to learn more about SQL.

## **Session Overview:**

This course covers the Relational Database Design Concepts, SQL Programming Language, and SQL\*Developer. The topics below will be explained briefly at an introductory level accompanied with examples and hands-on lab practice exercises:

1. Data Definition Language (DDL)
2. Data Manipulative Language (DML)
3. SQL data types, Data Conversion Functions (Format Masks)
4. Aggregation and Aggregation Functions.
5. Joins on tables along with advanced query topics, sub-queries, range queries

As time allows, we may be able to cover the additional topics below:

1. Data Control Language (DCL)
2. Indexes
3. Views
4. Data Dictionary Catalog

## **What is SQL Programming & SQL\*Developer:**

**SQL (Structured Query Language)** is a domain-specific **language** used in **programming** and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS). In today's Data Analytics space, SQL is very useful to extract data, manipulate data and prepare it to be ready for consumption and visualization in the variety of tools in the market like Tableau, Looker, MicroStrategy, Qlik, etc.

Oracle **SQL\*Developer** is an integrated development environment (IDE) for working with **SQL** in Oracle databases. Oracle Corporation provides this product free; it uses the Java Development Kit. You can script SQL statement and connect to the majority of relational databases with several tools like SQL\*Developer. Some of those tools are free and available online.

### **Optional Text Book Reference:**

If students would like to get a textbook for reference and future use after this course is completed (Not required for the course), below is a recommended textbook:

**Oracle Database 11g SQL (Oracle Press) Paperback – November 5, 2007**  
by Jason Price ISBN-13: 978-0071498500

### **Instructor:**



**Faysal Shaarani** has been in the field of Information Technology for 28 years working with Oracle Databases and Oracle products. He has spent 10 of those years with Oracle Corporation working in different capacities (Consulting, Technical Support, and Sales and Marketing IT).

While at Oracle Consulting, Faysal delivered on-site training to Oracle customers in the United States and overseas.

In addition to writing numerous Oracle technical articles, Faysal has edited and provided technical reviews to various technical articles and books on Relational Databases, Oracle, and the SQL and PL/SQL programming languages.

Faysal spent 13 years at Cisco Systems working in different capacities (Data Warehousing as a Senior IT Engineer/Operations and infrastructure Lead, IT Compliance, IT Architecture, and Borderless Networks). Over the same period of time he has been teaching various Oracle classes (Oracle Database Architecture and Administration, Backup and Recovery, Performance Tuning, PL/SQL Programming, SQL Programming, Oracle Forms, and Oracle Reports) at both UC Santa Cruz and UC Berkeley Extensions as well as at the University of Phoenix and at Ohlone College.

Most recently, Faysal has worked as a Senior Business Intelligence Data Analyst at Hightail, Inc., and as a Senior Sales Engineer at Snowflake Computing, the Cloud Data Warehousing on-line SAS Company. Faysal holds a BS in Computer Science and an MBA in Marketing.

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