

ORACLE 10g Based Course Outlines

Detailed topical outlines are available on request. The following outlines are simply for general ideas on prospective training programs. If necessary, we can prepare custom-made training outlines including additional desired topics.

Module 1: Principles of Relational Databases and SQL*Plus

- Principles of Relational Database Design
- Database General Integrity Rules
- Relational Operators
- Principles of Normalization & De-normalization
- Data Definition and Manipulation Using SQL*PLUS, iSQL*PLUS, & SQL*LOADER
- Oracle Database Architecture:
 - Instance, SGA, PGA, Oracle Processes, Physical Files, Data Blocks, Extents, Segments, schema and non-schema objects, major design and storage parameters

Audience

- Database Administrators, System Analysts and Designers, Application Developers, Database Users, Functional Area Users and Developers

Prerequisites

- Basic knowledge on small database systems like Microsoft Access, or FoxPro

Module 3: Oracle Forms 10g

- Architecture and Environment
- Simple GUI Development
- Beyond the Basics
- Managing and Manipulating Canvas, Windows, Form Modules and Menu Modules
- Property Classes, Object Groups, Sub classing and Object Libraries
- Extensive use of Built-in and User-Defined Packages
- Transaction Processing Principles
- Implementation and Deployment Issues

Audience

- Application Developers and Functional Area Developers

Prerequisites

- Basic knowledge on PL/SQL, and Oracle Database (or Modules 1 and 2)

Module 2: PL/SQL

- PL/SQL
- Introduction: Motivation and Syntax
- Control Structures, Block and Code Module
- Function and Procedure Overloading
- Stored Functions and Procedures
- Static and Dynamic Cursor Processing
- Database Triggers
- Manipulating Collections
- Exception Handling
- PL/SQL Packages
- Built-in Packages

Audience

- Database Administrators, System Analysts and Designers, Application Developers, Functional Area Developers

Prerequisites

- Intermediate to advanced level knowledge on SQL*PLUS and Oracle Database or Module 1

Module 4: Oracle XML Processing

- Introduction to XML, Schema, Validation, and XSLT
- XDK and XML Related Packages in Oracle 10g
- SQL/XML (as in Oracle 10g)
- XML Type Object and its Methods
- PL/SQL API for XML Types
- Loading XML Documents from External Files
- XML Transformation Using BFILE
- Parsing XML Documents
- XMLGEN and XMLPROCESSOR Packages

Audience

- Database Administrators, System Analysts and Designers, Application Developers, Web Developers, Functional Area Developers

Prerequisites

- Basic knowledge on SQL*PLUS, Oracle Database, PL/SQL and HTML

About the Instructor

Dr. Mesbah U. Ahmed is a Professor in the Information, Operations and Technology Management Department in the College of Business Administration, at The University of Toledo.

Professor Ahmed has provided many custom-made seminars and general training on database and systems development for various Toledo and Detroit area companies. He received The University of Toledo Outstanding Teacher Award in 2000 and the College of Business Administration Outstanding Graduate Teaching Award in 2001.

He has published many research and practice oriented papers in national and international journals. His major areas of interest are in the database design, Web application development in .NET and Java environment, XML and Web Services. He has co-authored two books, one on XML.NET, and the other on ASP.NET.