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## Oracle8i Foundation PL/SQL Workshop

Duration: 2 days

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### *Develop database triggers, stored procedures, and functions.*

#### Course Description:

This course will cover Oracle8i PL/SQL programming language. Students will control data sharing and locking, develop an understanding of multi-user and concurrent transactions and develop database triggers, stored procedures and functions.

#### Participants will learn to ...

- The PL/SQL Environment
- PL/SQL Program Structure
- Update, Insert and Delete Statements
- Variable Scope Rules
- Error Report Functions
- Debugging Procedures
- Logical Comparisons
- To define and Execute Procedures
- To define Functions
- To create Package Specifications
- To store PL/SQL Program Units
- To store and Test a Function

#### Who Needs to Attend:

Application Developers and Database Administrators who need a fundamental understanding of Oracle 8i, PL/SQL or the SQL language.

#### Prerequisites:

Oracle 8i Foundation: SQL Basics & SQL\*PLUS or equivalent experience.

#### Course Content:

##### 1. PL/SQL BASICS

- SQL and PL/SQL
- PL/SQL anonymous block structure
- Variable declarations
- PL/SQL datatypes
- Object naming rules
- Executable Statements
- Repetition control
- Types of LOOP statements
- SQL\*PLUS development environment

##### 2. WORKING WITH DATABASE DATA

- Selecting single rows
- Referencing other variables or a database column's datatype
- Modifying database data (DML)
- Implicit cursor attributes
- Transaction control commands
- Selecting multiple rows
- Declaring explicit cursors
- Referencing other structures datatypes
- Using the cursor FOR LOOP
- Displaying messages with DBMS\_OUTPUT

##### 3. EXCEPTION HANDLING

- Writing an exception handler section
- Handling predefined exceptions
- Handling user-defined exceptions
- Controlling exception processing
- Using RAISE\_APPLICATION-ERROR
- Preventing unhandled exceptions
- Using PRAGMA EXCEPTION-INIT

##### 4. STORED PL/SQL OBJECTS

- Introduction to procedures and functions stored in the database
- Creating stored PL/SQL objects
- Creating procedures
- Creating functions
- Creating packages
- Creating package bodies
- Introduction to database triggers

#### Course Labs:

1. Using PL/SQL to create an Anonymous Block
2. PL/SQL Basics
3. Selecting and Updating Database Data
4. Using Explicit Cursors
5. Handling Exceptions
6. Creating a Procedure
7. Creating a Function
8. Creating a Package
9. Creating a Database Trigger