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## Course 263: Advanced Oracle PL/SQL for End Users, Hands-On

### Course Description...

The basic mechanics of PL/SQL are extended in this course to include more complex coding structures. Higher performing techniques, such as using collections of data instead of the more classical Cursor processing, can make the difference between an application running within specifications and not. Taking advantage of Invoker Rights can simplify the problem of managing a volatile code base. Native Dynamic SQL enables capabilities that cannot normally be done in code. Learning how to prepare a set of data within this language, then passing an address back to other code allows applications to take advantages of front-end languages: a best of breed implementation.

This course provides the student with extensive lab experience to develop these advanced skills.

### Learning Objectives...

- Understand how to compile PL/SQL code with various options to facilitate performance and maintainability
- Classify the various collection types by typical usages
- Discover how to BULK move sets of data to meet high performance requirements
- Assemble SQL statements dynamically within code and call the interface for processing
- Pass addresses back to front-end code containing the pointer to where a carefully constructed set of data is located

### Who should attend...

This course is intended to provide server-side Application Developers with the advanced PL/SQL programmatic constructs needed.

### Prerequisites...

Basic SQL and PL/SQL skills are required. Course 262 plus some experience is sufficient.



## **Course Outline**

### **Introduction and Overview**

Course Objectives

### **Unit 1: PL/SQL Review**

- The basic Block Statement

### **Unit 2: Compiler Options**

- Autonomous transactions
- Invoker rights
- Native C compiles

### **Unit 3: Coding with Collections**

- Programmatic Collections vs. Storable Collections
- Associative arrays
- Nested tables
- Varrays
- Using nested tables and varrays with SQL
- Coding with collection types
  - Bulk operations

### **Unit 4: Native Dynamic SQL**

- The need for NDS
- The EXECUTE IMMEDIATE statement
  - The INTO clause
  - The USING clause

### **Unit 5: Cursor Variables**

- Preparing data for front-end code
- Strong vs. weak Cursor variables

### **Unit 6: Non-Programmatic Package Declarations**

- Global definition
- Definitions private to the Package Body

### **Unit 7: Course Summary**

Summary