Tél : +352 27 39 351
Fax : +352 27 39 52 68
Email : formation@oxiane.lu

# Oracle Database 11g: SQL & PL/SQL New Features

After completing this course, students should be able to use all new SQL & PL/SQL features.

## Détails

- Code : O11GNFSQLPLSQL
- Durée : 2 jours ( 14 heures )

Public

- Application Developers
- Database Administrators
- SQL & PL/SQL Developers

Pré-requis

- Experience and knowledge of SQL and PL/SQL from prior Oracle releases

Objectifs

- Explore the PIVOT and UNPIVOT Data warehousing operators
- Use the SQL Developer interface
- Write SQL statements that include the new functions added to enhance regular expression support functionality
- Use the enhancements added to native dynamic SQL and to DBMS_SQL which enable more interoperability between the two methodologies
- Use element level dependency tracking

## Programme

### Implementing the Language Functionality Enhancements

- Use the new regular expression support functions to find sub patterns and count the occurrences of patterns
- Track dependencies at the element level
- Find and fix exception handlers that do not pass the exception upward to the calling program or environment
- Dispatch an over ride-able object type method using the ANSI SQL 2003 standard for super-types
- Use the WAIT option for DDL statements
- Use the LOCK TABLE new syntax that enables you to specify the maximum number of seconds the statement should wait to obtain a DML lock on the table

### Executing Dynamic SQL in PL/SQL with the 11g Enhancements

- Write PL/SQL code that uses dynamic SQL and allows for SQL statements larger than 32kb
- Use the DBMS_SQL.PARSE() function that is overloaded for CLOBs
- Convert a REF CURSOR to a DBMS_SQL cursor and vice versa to support interoperability
- Program using the enhancements to DBMS_SQL that include supporting the full range of data types (including collections and object types)
- Create user-defined collection types and bulk bind them using DBMS_SQL

### Utilizing the Performance Improvement Enhancements

- List the compiler changes and how the changes impact native compilation
- Use the new SIMPLE_INTEGER data type
- Describe the process of in-lining
- Use flashback to store and track all transactional changes to a record

### Practicing the Language Usability Enhancements

- Implement the sequence calls to NEXTVAL and CURRVAL without using a SQL statement to retrieve the values
- Use the new CONTINUE statement to control the next loop iteration or to leave a loop
- Use both named and mixed notation calls to functions from a SQL statement
- Use the ALTER TABLE statement to change tables to read-only status

### Coding the Trigger Enhancements

- Create compound triggers
- Create disabled triggers
- Use the ENABLE clause with a trigger
- Control trigger order with the FOLLOWS and PRECEDES clauses

### Administering Secure-File LOBs

- Describe Secure-File LOB features
- Migrate Basic-File LOBs to the Secure-File LOB format
- Analyze the performance of LOBs
- Enable Secure-File LOB de-duplication, compression, and encryption

### Using the Data Warehousing Usability Enhancements

- Identify the benefits of pivoting and un-pivoting operations
- Write cross-tab queries to pivot (rotate) column values into new columns and to un-pivot (rotate) columns into column values
- Pivot and un-pivot with multiple columns and multiple aggregates
- Use wildcards and aliases with pivoting operations

Tél : +352 27 39 351
Fax : +352 27 39 52 68
Email : formation@oxiane.lu

### Using the SQL Developer Enhancements

- Navigate through the object navigator and view the enhancements
- Compile and debug PL/SQL
- Browse through the available search engines
- Change preferences
- Create reports

## Modalités

- Type d'action :Acquisition des connaissances
- Moyens de la formation :Formation présentielle – 1 poste par stagiaire – 1 vidéo projecteur – Support de cours fourni à chaque stagiaire
- Modalités pédagogiques :Exposés – Cas pratiques – Synthèse
- Validation :Exercices de validation – Attestation de stages