

## Training Objectives: -

**Summer Training Program on ORACLE 11g Administration & PL/SQL Programming** is specially designed for OCA (ORACLE CERTIFIED ASSOCIATE) for those who want to master in database. Apart from general database designing concepts It include detailed description of SQL performance tuning, Business Model of Retail Banking and optimized query development. Course includes both theoretical and practical aspect of the technology with proper lectures, assignments, labs and Project.

After completing this Training you are ready to:

1. Appear in Technical round in any company.
2. Appear exams on ORACLE DATABASE under any technical university of India.
3. Develop business models, Database ,forms and reports development.
4. Appear for OCA exam.
5. Update yourself with Advance concepts of
6. ORACLE DATABASE and PL/SQL.

**DURATION:** 4 WEEKS (80 Hours)

**FEE** : RS. 6000/-(Inclusive of Service .Tax)\*

**ELIGIBILITY:** B.E / B.TECH. in CS/IT/EC/EI/ IInd/ IIIrd/ IVth Year Students or MCA/M.Sc (IT/CS/Electronics), Diploma in any Stream

**Form Fee Rs 50.00 Extra**

## How to Apply:

For Admission, submit your college reference/training letter along with fee of Rs 6000 (either in Cash or Demand Draft in favour of "NIELIT, Gorakhpur". The application form may be downloaded from our website or collected from reception.

## Accommodation:

Hostel accommodation is available for Male candidates only.

## Training Highlights:

- Well Managed Course pattern
- Daily Handouts & Lab Exercise
- Industry Compliant Syllabus
- Use of Latest Tools & Technology
- LAB Assistance
- Regular Quiz

## Course Contents (Syllabus of Training)

### Module I

Introduction to DBMS,What is DBMS ,Relational Data Models, Data integrity rules ,Normalization ,Introduction to data p rocessing methods ,Client/Server,Oracle Architecture ,W hat is grid computing?

### Module II

SQL  
Creating Tables ,Integrity Constraints  
Adding, updating and dropping columns  
Transaction and locking ,Functions  
Grouping data ,Using ROLLUP and CUBE  
Joining tables ,ANSI Join  
Sub queries ,Working with TOPn analysis  
Views ,Materialized Views  
Using indexes and clusters  
Index Skip Scan  
Security  
Report generation using SQL\*Plus commands  
Distributed databases  
Partitioning  
List partitioning  
Lobs

### Module III

PL/SQL Programming  
What is PL/SQL ,Structure of PL/SQL block  
Control statement ,CASE expression  
Exception handling,Cursor handling  
Writing stored procedures and functions  
Definer rights vs. Invoker's rights  
Autonomous transactions  
Database triggers  
Native dynamic SQL  
Flashback query  
MERGE statement  
Multitable insert  
Using Regular Expressions

### Module IV

Exploring the Oracle Database ,Architecture ,Oracle Database Architecture Overview  
Oracle ASM Architecture Overview ,Process Architectur e ,Memory structruces  
Logical and physical storage structures  
ASM storage components

### Module V

Installing your Oracle Software  
Tasks of an Oracle Database Administrator  
Tools Used to Administer an Oracle Database  
Installation: System Requirements  
Oracle Universal Installer (OUI)  
Installing Oracle Grid Infrastructure  
Installing Oracle Database Software  
Silent Install

### Module VI

Creating an Oracle Database  
Planning the Database  
Using the DBCA to Create a Database  
Password Management  
Creating a Database Design Template  
Using the DBCA to Delete a Database

### Module VII

Managing the Oracle Database  
Instance ,Start and stop the Oracle database and components ,Use Oracle Enterprise Manager  
Access a database with SQLPlus  
Modify database installation parameters  
Describe the stages of database startup  
Describe database shutdown options  
View the alert log  
Access dynamic performance views

### Module VIII

Configuring the Oracle Network Environment  
Use Enterprise Manager to create and configure the Listener  
Enable Oracle Restart to monitor the listener  
Use tnsping to test Oracle Net connectivity  
Identify when to use shared servers and when to use dedicated servers

### Module IX

Managing Database Storage  
Structures Storage Structures  
How Table Data Is Stored  
Anatomy of a Database Block  
Space Management in Tablespaces  
Tablespaces in the Preconfigured Database  
Actions with Tablespaces Oracle Managed Files(OMF)

### Module X

Administering User Security  
Database User Accounts  
Predefined Administrative Accounts

Benefits of Roles, Predefined Roles  
Implementing Profiles

#### Module XI

Managing Data Concurrency  
Data Concurrency , Enqueue Mechanism  
Resolving Lock Conflicts , Deadlocks

#### Module XII

Managing Undo Data  
Data Manipulation , Transactions and Undo Data  
Undo Data Versus Redo Data , Configuring Undo Retention

#### Module XIII

Implementing Oracle  
Database Auditing ,  
Describe DBA responsibilities for security  
Enable standard database auditing  
Specify audit options  
Review audit information  
Maintain the audit trail

#### Module XIV

Database Maintenance  
Manage optimizer statistics  
Manage the Automatic Workload Repository (AWR)  
Use the Automatic Database Diagnostic Monitor (ADDM)  
Describe and use the advisory framework  
Set alert thresholds  
Use server-generated alerts  
Use automated tasks

#### Module XV

Performance Management Performance Monitoring  
Managing Memory Components  
Enabling Automatic Memory Management (AMM)  
Automatic Shared Memory Advisor  
Using Memory Advisors  
Dynamic Performance Statistics  
Troubleshooting and Tuning Views  
Invalid and Unusable Objects

#### Module XVI

Backup and Recovery Concepts Part of Your Job  
Statement Failure , User Error  
Understanding Instance Recovery  
Phases of Instance Recovery

Using the MTTR Advisor  
Media Failure  
Archive Log Files

#### Module XVII

Performing Database Backups  
using RMAN Backup Solutions: Overview  
Oracle Secure Backup , User Managed Backup  
Terminology , Recovery Manager (RMAN)  
Configuring Backup Settings  
Backing Up the Control File to a Trace File  
Monitoring the Flash Recovery Area

#### Module XVIII

Performing Database Recovery Opening a Database  
Data Recovery Advisor , Loss of a Control File  
Loss of a Redo Log File , Data Recovery Advisor  
Data Failures , Listing Data Failures  
Data Recovery Advisor Views

#### Module XIX

Data Replication Describe ways to move data  
Create and use directory objects  
Use SQL\*Loader to move data  
Use external tables to move data  
General architecture of Oracle Data Pump  
Use Data Pump export and import to move data

#### CONTACT FOR INFORMATION:

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## Summer Training Program in ORACLE 11g Administration & PL/SQL Programming

ORACLE® 11g  
DATABASE

ORACLE®  
PL SQL

ORGANIZED BY



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