

Nutech Computer Training Institute

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Advanced Oracle Hands-On on Linux

Day 1: Learn most necessary Linux skills to managing Oracle

Linux (Unix) Basics – OGG64 installed

- Linux Directory Structure
- Linux Files, setting permission and Ownership
- Setting Environmental and Shell Variables
- Bash Shell

Preparing Linux for Oracle

- Creating the Oracle user
- Creating Groups, Users
- Managing Oracle softwares/Packages

Database Installation – Install Oracle on Linux;

- Install Oracle Database Software
- Setting Environment Variables

Home Works

- Download and configure PuTTY and WinSCP
- Add new disk to VM Linux server

Day2: Oracle Database Administrations;

Database Creation

- ORACLE_HOME and ORACLE_BASE
- Creating Oracle Directories
- Create Oracle Database on Linux using dbca

Grid Control Management

- Managing Oracle database using Grid Control (dbconsole)

Database Troubleshooting

- Troubleshooting Oracle database
- Oracle Logs

Home Works

- Create a new database in your VM server
- Fix ORA-32004
- Create scripts and modify .bash_profile to handle 2 databases in one server
- Create a pfile from spfile

Day3: Oracle Recovery Survive Guides;

RMAN Backup case studies

- Linux Scripting
- Oracle RMAN scripting
- RMAN Backup case studies

Database Recovery

- Oracle database RMAN recovery case studies

Home Works

- Setup a cronjob to run RMAN backup regularly.
- Create and modify Linux script and cronjob to handle backup
- Database Recovery
- Setup cronjobs to copy and delete old log files and backup files.

Day4: 11gR2 RAC Infrastructure and RAC Database Introduction;

11gR2 RAC Database presentation

Oracle 11gR2 RAC Grid Infrastructure

- Introducing and Managing Oracle 11gR2 Clusterware;
ASM
- Managing Oracle 11gR2 ASM
- Managing ASM SAN storages

Day5,: Continue Oracle RAC and Oracle Performance Tuning–Tuning Methodologies

RAC Instance and database

- Creating and Managing Oracle 11gR2 RAC database

Oracle Database performance tuning presentation

Oracle OPatch patching

- Patching Oracle database using OPatch

Home Works

- Apply a patch to a 11gR2 database

Day6: Oracle Maximum Available Architecture (MAA) - Data Guard Introduction and implementation

Oracle Data Maximum Available Architecture (MAA) presentation

Day7: Oracle Data replication with Golden Gate

Oracle GoldenGate presentation

Configure Goldengate to your VM Linux server

Apply the initial data transfer

Extra:

- Big Data Introduction
- Oracle 12c New Features introduction

DBA Responsibilities

The job of the DBA seems to be everything that everyone else either doesn't want to do, or doesn't have the ability to do. DBAs get the enviable task of figuring out all of the things no one else can figure out. More seriously though, here is a list of typical DBA responsibilities:

- **Installation, configuration and upgrading of Oracle server software and related products**
- Evaluate Oracle features and Oracle related products
- **Establish and maintain sound backup and recovery policies and procedures**
- Take care of the Database design and implementation
- Implement and maintain database security (create and maintain users and roles, assign privileges)
- **Perform database tuning and performance monitoring**
- Perform application tuning and performance monitoring
- Setup and maintain documentation and standards
- Plan growth and changes (capacity planning)
- Work as part of a team and provide 7x24 support when required

- **Perform general technical trouble shooting** and give consultation to development teams
- Interface with Oracle Corporation for technical support.
- **Patch Management and Version Control**

DBA Skills Required

- Good understanding of the Oracle database, related utilities and tools
- A good understanding of the underlying **operating system**
- A good knowledge of the physical database design
- Ability to perform both Oracle and operating system **performance tuning** and **monitoring**
- Knowledge of ALL Oracle **backup and recovery** scenarios
- A good knowledge of Oracle security management
- A good knowledge of how Oracle acquires and manages resources
- A good knowledge Oracle data integrity
- Sound knowledge of the implemented application systems
- Experience in code migration, database change management and data management through the various stages of the development life cycle
- A sound knowledge of both database and system **performance tuning**
- A DBA should have sound communication skills with management, development teams, vendors and systems administrators
- Provide a strategic database direction for the organization
- A DBA should have the ability to handle multiple projects and deadlines
- A DBA should possess a sound understanding of the business