

ODM-NDA: Oracle NoSQL Database for Administrators Ed 2

Course Code: ODM-NDA

Duration: 2 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

The Oracle NoSQL Database for Administrators Ed 2 training course will give you a detailed overview of deploying a KVStore and troubleshooting the installation and hardware failures, During the training, you will also learn to monitor and manage it.

SKILLS COVERED

Upon completion of this course, you will know:-

- Planning, installation & Configuration of Oracle NoSQL Database
- Deploying Oracle NoSQL Database KVStore & Securing the configuration
- Troubleshooting the installation and hardware failures
- Monitoring & optimizing Oracle NoSQL Database performance
- Perform backup, recovery & upgrades

WHO SHOULD ATTEND?

- Application Developers
- Database Administrators
- Java Developers
- Hadoop/BigData Cluster Administrator

PREREQUISITES

- Basic Computer Knowledge.

COURSE CONTENTS**Course Introduction**

Course Objectives
Course Schedule
Course Environment
Accessing the Labs Directory
Introducing Personas
Course Supplement
Additional Resources

Oracle NoSQL Database: Overview

Oracle NoSQL Database
Key Features
Benefits of Using Oracle NoSQL Database
Supported Data Types
How Does the Oracle NoSQL Database Work?
Oracle NoSQL Database Components
Partitions and Key Value Pairs
Performance and Throughput

Planning An Installation

KVStore Analysis: Tasks
Understanding Storage Capacity and Throughput Capacity
Using InitialCapacityPlanning Spreadsheet
Application Requirements
Hardware Requirements
Performance Requirements: Estimating Workload
Performance Requirements: Estimating Throughput
Performance Requirements: Estimating Cache Size

Installing and Configuring Nodes

Prerequisites Checklist
Installation Steps
Creating Directories
Extracting Software
Verifying the Installation
Configuring the Replication Node
Using the makebootconfig Utility
Starting Storage Node Agents

Configuring and Deploying A KVStore

Configuration Steps
Introducing Plans

States of a Plan

Starting the Admin CLI

Configuring KVStore

Creating a Data Center/Zone

Deploying an Admin Node

Creating a Storage Pool

Modifying a KVStore

Reasons to modify a cluster

Increasing a clusters capacity

Increasing a clusters replication factor

Steps to modify a cluster

Securing the Configuration

Security Overview

Performing a secure installation using
makebootconfig

Secure an existing installation using
securityconfig

Security.xml Parameters

Encrypting Data

Configuring Authentication

Default Security Policies

Security Guidelines

Troubleshooting Oracle NoSQL Database

Installation Issues

Verifying a KVStore

Verify Command

Verification Using Admin Console

Locating the Installed Files

Understanding the Installed Files

Understanding the Log File

Service States

HA Port Ranges

Fixing Hardware Failures

Hardware Failures: Overview

Network Failure

Recovering from Network Failure

Detecting Storage Device Failures

Replacing a Failed Storage Device

Detecting Server Failures

Replacing a Failed Storage Node

Migrating to the New Storage Node

Setting Store Parameters

Introducing KVStore Parameters

List of Parameters

Parameter Usage

Viewing Parameters Using CLI

Viewing Parameters Using the Admin Console

Changing Parameters Using CLI

Changing Parameters Using Admin Console

Setting Replication Node Policy

Optimizing KVStore Performance

Best Practice: Set Optimal JE Cache Size

Estimating JE Cache SizeRequirement

Setting JE Cache Size

Best Practice: JVM

Best Practice: Set Optimal Java Heap Size

Estimating Java Heap Size

Setting Java Heap Size

Best Practice: Log Garbage Collection Activity

General Monitoring

Monitoring the KVStore (include SNMP and
JMX)

Events

Viewing the Events: Using Admin Console

Viewing the Events: Using CLI

Using SNMP and JMX

Backup and Recovery

Backup Process

Introducing Snapshots

Using Snapshots

Recover Process

Recovery: Using a Load Program

Using the Load Program Guidelines

Recovery: Directly Using Snapshots

Updating an Existing Deployment

Managing AVRO Schema

Introducing AVRO schema

JSON format

Adding a schema

Changing a schema

Viewing a schema

Disabling a schema

Enabling a schema

Upgrading the Software

Upgrade Process: Overview

Pre-requisites

Upgrading from R1 to R2

Upgrading from R2 to R3

Using a script

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