

Oracle NoSQL Database for Administrators Ed 2

Module 1: Course Introduction

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

Module 2: 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

Module 3: 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

Module 4: 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

Module 5: 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

Module 6: Modifying a KVStore

- Reasons to modify a cluster
- Increasing a clusters capacity
- Increasing a clusters replication factor
- Steps to modify a cluster

Module 7: 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

Module 8: 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

Module 9: 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

Module 10: 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

Module 11: 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

Module 12: 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

Module 13: 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

Module 14: Managing AVRO Schema

Introducing AVRO schema
JSON format
Adding a schema
Changing a schema
Viewing a schema
Disabling a schema
Enabling a schema

Module 15: Upgrading the Software

Upgrade Process: Overview
Pre-requisites
Upgrading from R1 to R2
Upgrading from R2 to R3
Using a script