

Using Oracle NoSQL Database

CODICE

D77998GC10

DURATA

4 Giorni

PREZZO

2.300,00€ (iva escl.)

LINGUA

Italiano

MODALITÀ

Virtual Classroom
Corso in aula

SCHEDULAZIONE

- A Richiesta

PREREQUISITI

Understanding of Big Data

Java programming

[Introduction to Big Data](#)

Prerequisiti suggeriti :

[Java SE7 Fundamentals](#)

[Introduction to Oracle NoSQL Database](#)

Audience:

Sviluppatori di applicazioni

Amministratore di database

Sviluppatore Java

•

OBIETTIVI

Define Big Data

Differentiate a NoSQL Database from the Relational Database Management System

Identify when to use a NoSQL Database

Identify the key features of the Oracle NoSQL Database

Explain the Oracle NoSQL Database architecture

Identify the components of Oracle NoSQL Database

Use KVLite

Identify the schema structure for Oracle NoSQL Database

Define and design major and minor keys

Define consistency and durability



- Identify the Java API's to access the KVStore
- Install Oracle NoSQL Database
- Configure a KVStore using command line interface and admin console
- Explain how to update an existing deployment
- Identify how to override a default consistency and durability policy
- Create and execute a transactional operation

•

CONTENUTI

Big Data and NoSQL Database Overview Defining Big Data Big Data Evolution Introducing NoSQL Database NoSQL Database versus RDBMS Consideration Points Before Opting for NoSQL Database Oracle Big Data Solution HDFS Oracle NoSQL Database Defining the Oracle NoSQL Database Key Features and Benefits Supported Data Types How Does the Oracle NoSQL Database Work? Components of the Oracle NoSQL Database

Partitions and Key Value Pairs Accessing KVStore Introducing KVLite Designing a Schema Schema Structure What is a Key Component? Identifying the Major Key Identifying the Minor Key How is a Key Stored in the Oracle NoSQL Database? Design Considerations for Key Components What is a Value Component? Types of Value Component Consistency Understanding the Write and Read Process Understanding Consistency Default Consistency Applying Consistency Predefined Consistency Time Based Consistency Version Based Consistency Durability Understanding the Write Process Understanding Durability Default Durability Applying Durability Synchronization Based Durability Acknowledgement Based Durability Credit Card Application and APIs: Overview Credit card approval application Analyzing the Data Designing the Schema Identifying the Key Structure APIs: Overview Administration: Overview Tasks of the Administrator KVStore Components: Review Replication Nodes, Shards, and Partitions Balancing a KVStore Security Defining Key Terms (Latency, Throughput, Cache) Steps to Deploy a KVStore (Plan, Install, Configure Installation, Configure KVStore) Planning the Installation Analyze Workload and Identify Hardware Resources, Install storage nodes, Configure Installation Analysis: Tasks Estimating Record Size Estimating Workload

Determining Throughput Requirements Determining Store Configuration Determining Cache Size Setting-up the Oracle NoSQL Database Nodes Prerequisites Checklist KVHOME and KVROOT Installation Steps Creating Directories Extracting Software Verifying the Installation Steps for Configuring the Installation Using the makebootconfig Utility Configuring and Deploying the KVStore Configuration Tools Introducing Plans States/Life cycle of a Plan Reviewing and Tracking Plans Introducing the Admin Console Configuring KVStore Creating a Data Center Creating a Storage Pool Store Parameters Introducing KVStore Parameters Parameters List Viewing Parameters Changing Parameters Using CLI Changing Parameters Using Admin Console Setting Admin Parameters Setting Storage Node Parameters Setting Replication Node Parameters Optimizing KVStore Performance Factors Affecting KVStore Performance Introducing JE Cache Size Estimating JE Cache Size Setting JE Cache Size Introducing Java Heap Size Optimizing Key Size Logging Garbage Collection Activity Backup and Recovery Backup Process Introducing Snapshots Using Snapshots (commands to create, remove, list, and remove all) Managing Snapshots Methods to Recover KVStore Recovering KVStore: Using a Load Program Recovering KVStore: Using a Snapshot Updating an Existing Deployment

Troubleshooting Verifying a KVStore Monitoring a KVStore Replacing a Failed Storage Node Fixing Incorrect HA Port Ranges Accessing the KVStore KVStore Handle Creating a KVStore Handle Using KVStoreFactory Class KVStoreFactory Class Definition Using KVStoreConfig Class KVStoreConfig Class Definition Creating a KVStore Handle: Example View KVStore Parameters' Default Values Creating Key and Value Components Structure of a Record: Review Creating a Key Component: Overview Creating a Major Key Component Creating a Minor Key Component Creating a Key: Examples Creating Value Components: Overview Creating a Value Component Creating Value Components: Examples Loading Data into a KVStore The Load Process Creating a Load Program Methods Available to Write Records to KVStore Using the put() Method Reviewing a Sample Load Program Identify the Record Structure of the Sample Data Running the Sample Load Program Retrieving Data from a KVStore Retrieving Records Methods: Overview Using get() get(): Example Using multiGet() multiGet(): Example Key Range Creating a Key Range Key Depth Manipulating Data in a KVStore Methods: Overview putIfAbsent(): Use Case Performing a Create Operation putIfPresent(): Use Case Performing an Update Operation Deleting a Single Record

Deleting a Single Record: Example Deleting Multiple Records Handling Exceptions Understanding Exceptions Oracle NoSQL Database Exceptions RequestTimeout Exception Methods that Throw RequestTimeout Exception Handling



RequestTimeout Exception RequestLimit Exception Methods that Throw RequestLimit Exception Handling RequestLimit Exception Configuring Consistency Consistency: Review Viewing the Default Consistency Using Pre-defined Consistencies Over-riding the Default Consistency Changing the Default Consistency Creating Time Based Consistency Creating Version Based Consistency Configuring Consistency and Durability Durability: Review Viewing the Default Durability Setting Synchronization-based Durability Creating a New Durability Policy Transactional Operation Executing a Transactional Operation OperationFactory: Methods Handling Exceptions

Description:

In this course, you'll learn what an Oracle NoSQL Database is, what the features and benefits are and how to use it to store Big Data. Explore key concepts of the NoSQL Database technology, while learning when to use the Oracle NoSQL Database versus an RDBMS.

Learn To:

Monitor and optimize Oracle NoSQL Database performance.

Perform backup, recovery and troubleshooting tasks.

Create an application using Oracle NoSQL Database APIs.

Define Big Data and identify when to use the Oracle NoSQL Database.

Explain the key features, benefits and components of Oracle NoSQL Database.

Install and configure Oracle NoSQL Database.

Installing & Configuring a KVStore

This course will also teach you how to install and configure a KVStore. You'll learn to optimize the KVStore's performance, troubleshoot errors, create and store records, manipulate data, handle exceptions and implement consistency and durability policies.

Prezzi e corsi potrebbero subire variazioni; si consiglia di verificare sul sito www.novanext.it/training.