

## Using Oracle Database Vault with Oracle Database 12c

**Duration: 2 Days**

What you will learn

The Using Oracle Database Vault with Oracle Database 12c course will teach you how to configure and use Oracle Database Vault. Oracle Database Vault provides powerful, preventive and administrative controls that helps organizations defend against common attack vectors from inside and outside the organization.

### Learn To:

Enable and configure Oracle Database Vault.

Configure realms, rule sets, rules, SQL command rules and secure application roles.

Define factors to extend rule sets.

Run Database Vault reports to view attempted policy violations.

### Benefits to You

Using Oracle Database Vault helps organizations increase security through powerful preventive and administrative controls that include protection zones around applications that prevent insiders and outsiders from using their privileged user access to view sensitive application information. Oracle Database Vault command controls enable policies to be associated with virtually any SQL command. Policies can evaluate factors such as connection IP address, program name, date/time, and authentication method to determine whether a user should be permitted to execute a given command inside the database. Oracle Database Vault administrative controls include real time privilege analysis, helping organizations reduce the attack surface of over privileged applications through actual analysis of privileges used.

In this course, you learn how to configure Database Vault, perform privilege analysis, configure realms, rule sets, rules, SQL command rules, secure application roles and extend the predefined security strategy by using factors. You also learn how to use Database Vault reports to confirm the completion of your setup, to track configuration changes and attempted violations.

### Audience

Database Administrators

Security Administrators

Support Engineer

System Administrator

### Related Training

Required Prerequisites

Working knowledge of SQL and PL/SQL

**EZY Intellect Pte. Ltd.,**

**#1 Changi North Street 1, Singapore – 498789. [www.ezyintellect.com](http://www.ezyintellect.com)**

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## Suggested Prerequisites

Oracle Database 12c: Security

Oracle Database Administration experience

## Course Objectives

Learn best practices

Enable and configure Oracle Database Vault

Block access to sensitive application data from inside and outside the organization

Reduce the attack surface for potential security breaches through limiting privileges

Create protection zones using realms and secure application roles

Define command controls using rules sets, command rules, factors, and identities

Perform security analysis and report security vulnerabilities

## Course Topics

### Introduction

Course Objectives

Course Schedule

Curriculum Context

Your Learning Aids

Technical Course Setup

### Database Vault Overview

What is a Realm? A Rule Set? A Command Rule? A Secure Application Role?

What are Factors and Identities? Component Relationships and Evaluation?

Database Vault Effects and Example

Software Overview: API, Views, and Integration with Other Oracle Products

### Configuring Database Vault

Configuring Database Vault

Database Vault Roles and Schema

What to Expect After You Enable Database Vault

Securing Data in Multitenant Environments

Configuring Database Vault Users in Cloud Control 12c

### Analyzing Privileges

Privilege Analysis Overview and Features

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How Does it Work?

What are Your Types of Analysis, Tools, and Prerequisites?

Managing Privilege Analysis Policies

Use Cases

### **Configuring Realms**

Self-Assessment about Realms

How Realms Work

Benefits and Effects of Realms

Use Cases

Maintaining Realms

Using Oracle Defined Objects (Realms, Reports, Views)

### **Defining Rule Sets**

Self-Assessment about Rule Sets

Evaluation and Use of Rule Sets

Oracle Defined Rule Sets

Maintaining and Customizing Rule Sets

Using Oracle Defined Objects (Reports, Views, API)

### **Configuring Command Rules**

Self-Assessment about Command Rules

Command Rules Attributes and Scope

Use Case: Preventing Table Alterations in a Schema

Using Oracle Defined Objects (Command Rules, Reports, Views, API)

### **Extending Rule Sets**

Self-Assessment about Factors and Identities

Using your own and Predefined Factors

Factor Types, Identification, Evaluation, and Retrieval Method

Assigning Rule Sets, Validation Method, Audit and Error Options for Factors

Identities, their Purpose, Examples, and Trust Levels

Using Oracle Defined Objects for Factors and Identities (Reports, Views, API)

Maintaining Factors and Identities

### **Configuring Secure Application Roles**

Self-Assessment about Secure Application Roles

Benefits and Examples of Using Secure Application Roles

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Tasks with Secure Application Roles

Using Oracle Defined Objects (Reports, Views, API)

### **Auditing with Database Vault Reports**

Required Privileges

Security Analysis in Cloud Control

Checking for Configuration Issues and Changes

Reviewing Database Vault Audit Reports

Using General Security Reports

Other Security Vulnerabilities Reports

### **Implementing Best Practices**

Identifying, Building, and Documenting Your Security Requirements

Separation of Duty

Dual Key Security

Connection Pooling

Auditing and Performance

Various Security Guidelines and Recommendations