Oracle Project Mgmt Cloud: Proj Exec Mgmt Impl

Oracle Project Management Cloud

DURATION	MODULES	COURSE CODE
3 Days	**10 Lectures**	**—**

Course Overview

Note: This course is relevant for any customers using either Oracle Cloud and On-Premises deployments.

What You Will Learn

- 1-1 Introducing MySQL HeatWave Service
- Objectives 1-1-2
- MySQL HeatWave Service 1-1-3
- Benefits of a Fully Managed HeatWave Service 1-1-4
- Customer and Oracle Responsibilities 1-1-5
- Single Database for Transactional and Analytical Operations 1-1-6
- HeatWave System Overview Single System for OLTP, Analytics, and ML 1-1-7
- HeatWave Solutions for Different Workloads 1-1-8
- Summary 1-1-9
- 2-1 Introduction to Oracle Cloud Infrastructure
- Objectives 2-1-2
- Oracle Cloud Infrastructure Physical Architecture 2-1-3
- Regions 2-1-4
- Availability Domains 2-1-5
- Fault Domains 2-1-6
- Compartments and Tenancy 2-1-7
- Virtual Cloud Network (VCN) 2-1-8
- Public and Private Subnets 2-1-9
- IAM Policies 2-1-10
- Summary 2-1-11
- 2-2 DB System Overview
- Objectives 2-2-2
- Overview of HeatWave DB System 2-2-3
- Prerequisites for Creating a DB System 2-2-4
- DB System Provisioning 2-2-5

- Data Security 2-2-6
- Standalone DB System 2-2-7
- High Availability DB System 2-2-8
- Automatic Failover 2-2-9
- HeatWave Cluster and Nodes 2-2-10
- HeatWave Storage Layer 2-2-11
- Summary 2-2-12

Creating a DB System

- Objectives
- Steps to Create a DB System
- Navigating to the DB Systems Page
- Opening the Create DB System Dialog Box
- Selecting the Production or Development DB System
- Providing DB System Information
- Selecting Type and Entering Administrator Credentials
- Configuring Networking
- Configuring Placement
- Configuring Hardware
- Configuring Backup Plan and Initiating DB System Creation
- Creating a DB System
- Inspecting the DB System Endpoint
- Summary

High Availability

- Objectives
- HeatWave Service High Availability
- HeatWave Service with High Availability
- MySQL Group Replication
- Group Replication Within OCI
- Prerequisites for Enabling High Availability on a DB System
- High Availability for On-Premises Disaster Recovery
- Benefits of HeatWave Service with High Availability
- Creating a DB System with High Availability
- Creating a HeatWave DB System with High Availability
- Providing Basic Information for the DB System
- Creating Administrator Credentials and DB System Type
- Configuring Preferred Primary Placement
- Limitations
- Identifying a Failover
- MySQL Group Replication Within OCI
- DB System Details Page
- Failover from the OCI Console
- Automatic Switchover Due to Failover
- Failover from Your Application

- Common Failover Error Messages
- Failover Messages in the Error Log
- Performing a Switchover
- Manual Switchover
- Testing Failover with Switchover
- Process of Testing Failover with Switchover
- Selecting Switchover from the DB System Details Page
- Switchover Panel
- Selecting the Availability Domain for a Switchover
- Monitoring from HeatWave DB System Details Page
- Failover and Switchover to New Availability Domain
- Best Practices for Handling a Failover
- Summary

Connecting to a DB System

- Objectives
- DB System Endpoint
- Network Path
- Connecting to a DB System Using OCI Cloud Shell
- Accessing Cloud Shell
- Attaching a Cloud Shell Session to a VCN Subnet
- Running MySQL Client on Cloud Shell
- Connecting to a DB System Using Compute Instance
- Connecting to a DB System from a Compute Instance
- Connecting to the Compute Instance
- Connecting from the Compute Instance Using MySQL Shell
- Summary

Managing a DB System

- Objectives
- DB System States and Operations
- DB System Operations
- DB System States
- Managing DB Systems
- Navigating to the DB System Details Page
- Inspecting the DB System Details Page
- Stopping a DB System
- Stopping a DB System: Inactive
- Starting a DB System
- Starting a DB System: Active
- Restarting a DB System
- Restarting a DB System: Active
- Deleting a DB System
- Deleting a DB System: Dialog Box
- Deleting a DB System: Deleted

- Summary

Backing Up a DB System

- Objectives
- Creating a Manual Backup
- Backing Up a DB System
- Backup Types
- Creating a Manual Backup Using the Console
- Providing Information for DB System Manual Backup
- Inspecting Manual Backup
- Managing Backups
- Navigating to the DB System Details Page
- DB System Details Page
- Inspecting Backups
- Editing a Backup Using the Cloud Shell
- Editing a Backup Using the Console
- Moving a Backup Using the Console
- Moving a Backup Using the Cloud Shell
- Deleting a Backup Using the Console
- Deleting a Backup Using the Cloud Shell
- Point-in-time Recovery
- Point-in-Time Recovery
- Point-in-Time Recovery Benefits
- Restoring to a DB System
- Restoring from a Backup at a Point-in-Time
- Providing DB System Information
- Configuring Networking
- Configuring Preferred Primary Placement
- Configuring Hardware and Storage
- Configuring Backup Plan
- Restoring from a Backup Using the Cloud Shell
- Back Up/Restore Scenarios and Limitations
- Backup and Restore Scenarios: Standalone and High Availability
- Restoring DB Systems with a HeatWave Cluster: Limitations
- Restoring DB Systems with a HeatWave Cluster: HeatWave Data
- Summary

Replicating to a DB System – Part 1

- Objectives
- HeatWave Inbound Replication
- MySQL Replication
- HeatWave Inbound Replication
- Limitations
- Replication Prerequisites and Connectivity Scenarios
- Source Database Requirements

- Enabling GTID Mode
- Enabling GTID Mode Without Restart
- Row-Based Binary Logging
- Benefits of Creating a Dedicated Replication User
- Creating a Replication User
- Connectivity: Inbound Replication
- Connectivity with On-Premises MySQL Server in a Public Network
- Connectivity with On-Premises MySQL Server in a Private Network
- Connectivity with MySQL Server in an OCI Compute Instance
- Connectivity when both Source and Target are in OCI
- Loading Initial Data to your DB System
- Loading Initial Data from a MySQL Server to a DB System
- MySQL Shell Instance Dump Utility
- Storing the Dump Files in an Object Storage Bucket
- Exporting MySQL Data to an Object Storage Bucket
- Navigating to the MySQL DB Systems Page
- Creating a DB System
- Creating a Pre-Authenticated Request (PAR) URL
- Creating a Pre-Authenticated Request (PAR)
- DB System Creation
- Loading Initial Data from a DB System to a DB System
- Summary

Replicating to a DB System – Part 2

- Objectives
- Creating a Replication Channel
- Navigating to Channels
- Creating a Channel
- Source Connection
- SSL Configuration and Replication Positioning
- Selecting the Target DB System
- Verifying the Channel Status
- Managing Channels
- Viewing Channel Details
- Viewing the Channel’s Source and Target
- Channel States
- Channel Operations
- Disabling a Channel
- Enabling a Channel
- Resetting a Channel
- Resuming a Channel
- Deleting a Channel
- Editing a Channel
- Troubleshooting Inbound Replication
- Identifying Replication Errors

- Connection Refused
- Access Denied
- Insecure Connection
- Purged Binary Log Files
- Reasons for Purged Binary Log Files Error
- Fixing the gtid_purged Setting
- Fixing Purged Binary Log Files
- Lock Wait Timeout Exceeded
- Corrupted Relay Log Files
- Data Synchronization Issues
- Summary

Replicating to MySQL Server

- Objectives
- Outbound Replication Scenarios
- Replicating from a DB System to a MySQL Server
- On-Premises MySQL Server Replication
- MySQL Server in a Compute Instance
- Compatibility Options
- Enabling Partial Revokes
- Enabling GTID Mode
- Enabling GTID Mode Without Restart
- Lower Case Table Names
- Loading Time Zones
- Loading Time Zone Tables
- Loading Initial Data to the Replica Database
- Prerequisites to Replicating from a DB System
- Loading Initial Data from a DB System to a MySQL Server
- Exporting Data from a DB System
- Importing Data to MySQL Server
- Configuring Outbound Replication
- Using SQL Statements
- Configuring a Replication Channel
- Configuring a Replication Channel: Example
- Starting and Stopping Replication
- Resetting Replication
- Troubleshooting Outbound Replication
- Viewing Replication Status
- Identifying Replication Errors
- Configuring and Starting a Replication Channel: Example
- Troubleshooting Replication Errors
- Summary

Migrating Your Data to MySQL HeatWave Service

- Objectives

- Migrating your data to MySQL HeatWave Service
- Migrating to HeatWave Service
- MySQL Dump Utilities
- List of MySQL Shell Dump Utilities
- Syntax of MySQL Dump Utilities
- Examples of MySQL Dump Utilities
- Dump Utilities: Other Options
- Dumping data to OCI Object Storage
- Destination of the Dump Files
- Example of Object Storage Options
- Performing a Dry Run
- HeatWave Compatibility Checks
- HeatWave Service Compatibility Modifications
- Incompatible Table Definitions
- Tables Without a Primary Key
- Incompatible User Accounts or Grants
- Objects with Definer Clause
- Summary

Read Replicas

- Objectives
- Read Replicas
- Read Replica Load Balancer
- Prerequisites for Creating a Read Replica
- Read Replica Use Cases
- Creating a Read Replica
- Entering Read Replica Information
- Viewing Read Replica Information
- Monitoring Read Replica Metrics
- Connecting to a Read Replica
- Connecting to the Read Replica
- Connecting to a Read Replica with MySQL Shell
- Read Replica Maintenance and Limitations
- Read Replica Maintenance
- Limitations
- Summary