

# Application Integration on Oracle Cloud Ed 5 LVC

Application Development Learning Subscription

DURATION

**4 Days**

MODULES

**10 Lectures**

COURSE CODE

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## Course Overview

This training teaches you about leveraging Oracle Integration Cloud to create and configure connections and integrations for SaaS to SaaS, and SaaS to On-Premise integration use cases. This course is designed for business users and implementers who are responsible for defining and creating these integrations using the OIC dashboard

## What You Will Learn

### Module 1: Introduction to Oracle Integration Cloud (OIC)

#### 1.1 OIC Fundamentals

- OIC Overview
- Oracle Integration 3
- Editions of Oracle Integration 3
- Defining OIC Terminology

#### 1.2 OIC Core Capabilities

- Integrations
- Process Automation
- Visual Builder
- File Server
- B2B

#### 1.3 Integrations Feature Deep Dive

- Integrations Feature Overview
- Integrations Feature Use Cases
- Integration Patterns
- Application-to-Application Integration
- Automating Business Workflows
- Real-Time Data Synchronization
- Extending Applications

- Legacy Systems Integration

## 1.4 Integration Use Cases

- Unified Support Ticketing System
- Data Migration
- IoT Integration

## 1.5 Integration Architecture

- Elements of an Integration
- Integration Flow
- OIC Service Roles

## 1.6 Integration Projects

- About Projects
- Reasons to Use Projects
- Adding a New Project
- Determining Project RBAC Permissions
- Project Views and Sections
- Demo: Using Projects

## 1.7 Getting Started with Integrations

- Integration Development Workflow
- Example Use Case

# Module 2: Adapters and Connections

## 2.1 Adapters and Connections Basics

- What is an OIC Integration?
- What is an OIC Adapter?
- Design-Time Adapter Configuration Wizard
- Overview of OIC Adapters

## 2.2 Creating and Managing Connections

- Creating vs Configuring Connections
- Creating Additional Connections
- Connection Creation Workflow
- Select Adapter
- Provide Basic Information
- Adapter Configuration
- Connection Testing

## 2.3 Connection Sharing and Security

- Connection Sharing Between Projects
- Demo: Connection Sharing
- Connection and Security Properties (Part 1 & 2)

## 2.4 SOAP Adapter Connections

- SOAP Adapter Overview
- SOAP Invoke Connections
- SOAP Trigger Connections
- Use Cases

## 2.5 REST Adapter Connections

- REST Adapter Overview
- REST Invoke Connections
- REST Trigger Connections
- Use Cases

## 2.6 Private Connectivity

- Connecting to Private Resources
- Private Endpoint Adapter Support
- Connectivity Agent Adapter Support
- Differences Between Private Endpoints and Connectivity Agents

## 2.7 Connectivity Patterns and Architecture

- Connectivity Agent Architecture
- Public Internet Pattern
- FastConnect Public Peering Pattern
- Private Peering Patterns
- On-Premises Deployment
- OCI VCN Deployment
- Agent Deployment and Runtime Behavior
- High Availability Scenarios

# Module 3: Configuring Connections

## 3.1 Trigger Connections

- Trigger Concepts and Message Exchange Patterns
- Implementing Message Exchange Patterns
- Trigger Scenarios and Integration Patterns
- REST Trigger Configuration
- SOAP Trigger Configuration
- Database Trigger Configuration

## 3.2 Database Trigger Adapters

- Adapter Role Concepts
- Supported Database Systems
- Trigger Configuration

## 3.3 ERP Cloud Trigger Connections

- Receiving Business Events

- Receiving Callback Events for FBDI Jobs
- Trigger Request Page Options
- Demo: ERP Cloud Trigger Configuration

### 3.4 Invoke Connections

- Invoke Concepts and Use Cases
- REST Invoke Configuration
- Database Invoke Configuration
- Adapter Role Concepts
- Running SQL Statements
- Invoking Stored Procedures
- Performing Operations on Tables

### 3.5 ERP Cloud Invoke Connections

- Query, Create, Update, and Delete Operations
- Importing Bulk Data into ERP Cloud
- Sending Files to ERP Cloud

## Module 4: Data Transformation

### 4.1 Map Editor Fundamentals

- Map Editor Overview
- Integration Development Workflow
- Accessing the Map Editor
- Mapping Canvas Basics

### 4.2 Using the Map Editor

- Using the Map Editor – Part One
- Expression Builder
- Set Text Mode and Literal Values
- Using the Map Editor – Part Two
- Node Information
- Developer Toggle Button
- Filter Options and Search Data Fields
- Element Node Context Menu
- Troubleshooting Mapping Errors

### 4.3 Advanced Mapping Techniques

- Working with Functions
- Working with Operators
- Working with XSLT Statements
- Conditional Mappings
- For-Each Statements (Automatic Creation)
- Setting Default Values
- Working with Multiple Value Statements
- Deep Copy Using copy-of Constructor

## 4.4 XSLT and Lookups

- Editing XSLT Code in Map Editor
- Editing XSLT Code in Oracle JDeveloper
- Creating and Managing Lookups
- Using lookupValue Function
- Viewing Lookups in Use
- OIC Lookup Use Cases

## 4.5 Runtime Configuration Elements

- Variables
- Integration Properties
- Schedule Parameters

# Module 5: Using Integration Actions

## 5.1 Actions Overview

- Actions Overview and Elements
- Adding and Configuring Actions
- Action Logic Design

## 5.2 Variables and Context

- Global Variables
- Assigned Variables
- Scoped Variables
- Comparisons and Summary Concepts

## 5.3 Data Stitch Action

- Data Stitch Overview
- Stitch Operations
- Capability Comparisons
- Assigning and Appending to Global Variables
- Demo: Data Stitch Action
- Using Data Stitch in Orchestrations

## 5.4 Flow Control Actions

- Looping Actions Overview
- While Action: Use Cases and Considerations
- For-Each Action: Use Cases and Differences
- Switch Action
- Parallel Action
- Demo: While, For-Each, Switch, and Parallel Actions

## 5.5 Scope and OCI Actions

- Scope Action and Context Considerations
- OCI Function Action

- OCI Object Storage Action

## 5.6 Utility Actions

- Wait Action: Usage and Demo
- Note Action: Configuration and Use

# Module 6: File Processing

## 6.1 File Handling Fundamentals

- Virtual File System
- Receiving and Retrieving Files
- Writing and Sending Files
- Structured vs Opaque Files

## 6.2 File and FTP Adapters

- Defining FTP and File Adapter Connections
- Trigger and Invoke Role Use Cases
- Comparing FTP Adapter and File Adapter

## 6.3 File Operations Configuration

- FTP and File Adapter Operations - Part One & Two
- File Server Action Operations
- Stage File Action Operations
- Demo: File Server Action

## 6.4 File Transformation

- Transforming Native File Formats
- Defining Structured Files
- File Definition Wizard
- Native XML Schema (nXSD)

# Module 7: Error Handling

## 7.1 Designing Beyond the Happy Path

- Error Handling Concepts
- OIC Error Hospital

## 7.2 Global Fault Handling

- Implementing the Global Fault Handler
- Default Global Fault Handler
- Fault Entry and End Actions

## 7.3 Runtime and Scope Faults

- Handling Runtime Errors
- Scope Fault Handlers

- Additional Fault Handlers
- Catching Faults

## 7.4 Advanced Fault Management

- Throw New Fault Action
- Skip Condition Considerations
- Fault Mitigation Techniques

## 7.5 Error Handling Best Practices

- Dedicated Fault Handlers
- Monitoring Strategy
- Manual Intervention Using Processes
- Resubmitting Failed Instances
- Parking Lot and File-Based Reprocessing Patterns

# Module 8: Additional Integration Topics

## 8.1 Packages and Projects

- OIC Packages Overview
- Packages vs Projects
- Converting Packages to Projects
- Demo: Projects and Dependencies

## 8.2 Integration Lifecycle Management

- Activation and Deactivation
- Tracing Levels
- Cloning and Versioning
- Handling Locked Integrations

## 8.3 Observability and Events

- Integration Instance Tracking
- Publishing Endpoints to OCI API Gateway
- Using Events for Decoupling

## 8.4 Scheduling Integrations

- Scheduling Concepts and Patterns
- Creating and Managing Schedules
- Advanced Scheduling Options
- Schedule Parameters and Overrides

## 8.5 Monitoring and Accelerators

- Monitoring Integration Runs
- Resubmitting Failed Runs
- Recipes and Accelerators
- B2B Feature Overview and Demos

## Module 9: OIC Administrator Tasks

### 9.1 Provisioning and Security

- Provisioning OIC Instances
- Assigning OIC Service Roles

### 9.2 Connectivity Agent Administration

- Installing Connectivity Agents
- Agent Groups and Configuration
- Monitoring and Restarting Agents
- Demo: Connectivity Agent Management

### 9.3 Observability and Governance

- Allowlist Configuration
- OCI Metrics and Logging
- Dashboards and Fusion Monitoring
- Embedded File Server Administration
- Activity Streams

## Module 10: Integration Solution Examples

- Business Event Subscriptions
- ERP Cloud to Shopify Integration
- ChatGPT to Slack Solution
- Google Cloud Pub/Sub Adapter
- OCI AI Document Understanding
- OCI Streaming for Pub/Sub
- ERP Cloud and Third-Party Accelerators
- Multi-System Enterprise Integration Demos