Application Integration on Oracle Cloud Ed 5 LVC

Oracle Cloud Infrastructure

DURATION	MODULES	COURSE CODE
4 Days	**12 Lectures**	**—**

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 0: Learning Path Overview

- Overview of the Learning Path
- Intended Audience
- Measuring Your Progress
- Getting Answers You Need
- Ratings and Feedback
- Maximizing Course Value
- Getting Started

Module 1: Introduction to Oracle Integration Cloud (OIC)

- OIC Overview
- Oracle Integration, Process Automation, Visual Builder, File Server, B2B
- Integration Features Overview and Use Cases
- Oracle Integration 3 Editions
- Defining OIC Terminology
- Integrations Feature Use Cases
- Integration Patterns
- Application-to-Application Integration
- Automating Business Workflows
- Real-time Data Synchronization
- Extending Applications
- Legacy Systems Integration

- Unified Support Ticketing System
- Data Migration
- IoT Integration
- Elements of an Integration
- Integration Flow
- Understanding OIC Service Roles

Using Integration Projects: Overview, Adding Projects, RBAC Permissions, Project Views & Sections

- Demo: Using Projects
- Integration Development Workflow: Example Use Case

Module 2: Adapters & Connections

- Understanding Adapters & Connections
- Review: OIC Integration Concepts
- What is an OIC Adapter?
- Design-Time Adapter Configuration Wizard
- OIC Adapters Overview
- Creating Connections: Basics and Workflow
- Creating vs Configuring Connections
- Adapter Examples
- Connection Sharing Between Projects (Demo)
- Connection & Security Properties (Parts 1 & 2)
- Connection Testing
- SOAP Adapter Connections: Invoke & Trigger
- REST Adapter Connections: Invoke & Trigger
- Connecting to Private Resources
- Accessing Private Resources
- OCI VCN Subnet Endpoints
- Private Endpoint Adapter Support
- Connectivity Agents
- Differences Between Private Endpoint and Connectivity Agents
- Connectivity Agent Architecture
- Public Internet, FastConnect Public Peering, Private Peering Patterns
- Agent Deployment and Runtime Behavior
- Scenarios for On-Premises and Cloud Applications
- High Availability (HA) Agent Configurations

Module 3: Configuring Connections

- Configuring Trigger Connections
- Message Exchange Patterns
- Integration Development Workflow
- Integration Patterns
- Trigger Scenarios
- Adapter Examples
- Configure Basic Info, Request Page, and Adapter Details
- Integration Design Canvas

- REST & SOAP Trigger Configuration (Demos)
- Database Trigger Configuration and Supported Systems
- ERP Cloud Trigger Configuration
- Receive Business Events and Callback Events
- Configuring Invoke Connections
- Integration Development Workflow
- Use Cases & Integration Design Canvas
- Adapter Examples
- Configure Basic Info, Actions, Operations, and Adapter Details
- REST Invoke Configuration (Demo)
- Database Invoke Adapter Configuration
- ERP Cloud Invoke Configuration
- Query, Create, Update, Delete, Bulk Import, and File Transfer Operations

This breakdown divides the course into 4 main modules (with Module 0 as a pre-course orientation), which follow a logical progression:

- Introduction to OIC concepts and capabilities
- Understanding Adapters & Connections
- Configuring Trigger and Invoke connections in integrations

Module 4: Data Transformation

- Map Editor Overview
- Integration Development Workflow
- Accessing the Map Editor
- Mapping Canvas
- Using the Map Editor: Part One
- Expression Builder
- Using Set Text Mode & Entering Literal Values
- Using the Map Editor: Part Two
- Node Information and Developer Toggle Button
- Filter Options and Search Data Fields
- Element Node Context Menu
- Troubleshooting Errors
- Working with Functions, Operators, and XSLT Statements
- Functions, Operators, Conditional Mappings
- For-Each Statements and Automatic Creation
- Set Default Values, Multiple Value Statements
- Deep Copy of Elements with copy-of Constructor
- Editing XSLT Code
- In Map Editor
- In Oracle JDeveloper
- Creating and Using Lookups
- Creating, Updating, Using lookupValueFunction
- Viewing Lookups in Use and Use Cases
- Variables, Integration Properties, and Schedule Parameters

Module 5: Using Integration Actions

- Actions Overview
- Adding and Configuring Actions

Overview of Elements: Global, Assigned, and Scoped Variables, Integration Properties, Schedule Parameters

- Data Stitch Action
- Operations, Capability Comparisons
- Assigning and Appending to Global Variables
- Demo: Data Stitch Action in Orchestration
- Looping Actions
- While Action, For-Each Action, Switch Action, Parallel Action (Demos)
- Scope Action
- Context Considerations and Demo
- OCI Function Action (Demo)
- OCI Object Storage Action (Demo)
- Wait Action and Demo
- Note Action and Configurations

Module 6: File Processing

- File Handling Fundamentals
- Virtual File System Overview
- Receiving/Retrieving and Writing/Sending Files
- Structured vs. Opaque Files
- Defining FTP & File Adapter Connections
- Invoke & Trigger Use Cases
- FTP Adapter Connections and Operations
- File Server Action Operations
- Stage File Action Operations
- Transforming Native File Formats
- Defining Structured Files and File Definition Wizard
- Creating Native XML Schema (nXSD) Files

Module 7: Error Handling

- Designing Beyond the Happy Path
- OIC Error Hospital
- Implementing Global Fault Handler
- Entry, Logic, and End Actions
- Handling Runtime Errors
- Scope Fault Handlers and Additional Fault Handlers
- Catching Faults and Implementing Fault Handlers
- Throw New Fault Action
- Configuring, Skip Condition Considerations
- Fault Handling Best Practices
- Dedicated Fault Handlers, Global Fault Handler Logic

- Monitoring Strategy, Manual Intervention, Resubmitting Failed Instances
- Extended Strategies
- Parking Lot Pattern
- File-based Reprocessing Pattern

Module 8: Additional Integration Topics

- Packages and Projects Overview
- OIC Packages vs Projects: Key Differences
- Converting Packages to Projects
- Demo: Working with Projects & Viewing Dependencies
- Integration Lifecycle Operations
- Status, Activating, Deactivating, Cloning Integrations
- Versions, Handling Locked Integrations
- Demo: Observability, Instance Tracking, Publishing Endpoints to OCI API Gateway
- Using Events for Decoupling Integrations
- Demo: Using Events in Projects
- Defining Schedules

Creating Advanced Schedules, Using Schedule Parameters, Coordinating Multiple Runs

- Managing Integration Schedules, Monitoring Runs, Resubmitting Failed Runs
- Scheduled Integrations REST Endpoints
- Demo: Using OIC Recipes and Accelerators
- Installing, Extending, Testing, Exporting Accelerators
- Demo: B2B Features
- XSD & Documents, Trading Partner Transports & Agreements
- AS2 & REST Protocols, RosettaNet, Resubmit Options, Fixed-Length Documents

Module 9: OIC Administrator Tasks

- Provisioning an OIC Instance
- Assigning OIC Service Roles
- Installing and Managing a Connectivity Agent
- Create Agent Group, Download Installer, Execute Installer
- Post-Installation Verification
- Agent Monitoring and Restart
- Associating Connections with Agent Group
- Demo: Installing & Managing Connectivity Agent
- Configuring Allowlists to Restrict Access
- Observability Features
- OCI Service Metrics & Logging
- OIC Dashboards in OCI Logging Analytics
- Fusion Application Monitoring
- Administering Embedded File Server
- Capturing OIC Activity Streams to OCI Logging

Module 10: Integration Solution Examples

- Business Event Subscription
- Oracle ERP Cloud to Shopify
- ChatGPT to Slack Prebuilt Solution
- Google Cloud Pub/Sub Adapter Demo
- OCI AI Document Understanding Service Demo
- OCI Streaming for Pub/Sub Demo
- Shopify – ERP Cloud Accelerator
- Contract to Procurement – Salesforce, Coupa, DocuSign
- Sync Primavera with PostgreSQL via AWS SQS
- Cohere to Slack Prebuilt Solution
- Oracle ERP Cloud Warehouse Management Inventory Transactions Prebuilt Solution