OIC Course 2024:

1. **Integration Cloud Service (ICS)**

2. **Oracle Fusion Technical**

3. **Advanced Live Integrations with Fusion SaaS- Automation**

1. Integration Cloud Service (ICS)

Introduction to Cloud and Integrations

- Overview of Oracle Cloud
- Introduction to Various Oracle Cloud Offerings (IaaS, PaaS, SaaS)
- Overview of Oracle Fusion Middleware
- Architecture of Oracle Fusion Applications
- SOAP Webservices and WSDL
- REST Webservices
- XML, XSD, JSON

Adapters & Connections

- Oracle Cloud Adapters
- Creating Connections
- Connection Properties (Triggering & Invoking) and Security
- Configuring SOAP Adapter
- Configuring REST Adapter
- Configuring Database Adapter
- Configuring File Adapter for write
- Configuring File Adapter for poll read
- Configuring FTP Adapter for various operations
- Configuring Oracle ERP Cloud Adapter
- Configuring Oracle HCM Cloud Adapter

Integration Patterns Connections

- Basic Routing
- App Driven Orchestration
- Scheduled Orchestration
- Publish to OIC
- Subscribe to OIC
- File Transfer

Integration Design Overview

- Creating Integration
- Defining Trigger/Source Connection
- Defining Invoke/Target Connection
- Data Mapping

- Tracking Fields
- Activating & Testing Integrations (Generate WSDL)

Integration Mechanisms

- Expose integrations as SOAP using WSDL
- Expose integration as REST GET operation
- Expose integration as REST POST operation
- REST to SOAP
- Invoke SOAP Service in integration
- Invoke REST API in integration
- Convert from XML to CSV to JSON and vice versa
- Invoking various Adapters in the Integrations

Orchestrations

- App Driven vs Scheduled Orchestration
- Creating Orchestration
- Define Trigger & Invoke Sections
- Activities Related to Data
- Assign, Map
- Using functions in Map
- Encoding and Decoding Data in Mapping using Advanced functions
- Stage File for read, write, zip and unzip
- For-each, While, Switch & Scope
- Logger, Note, Notification & Wait
- Invoking Integrations from other Integrations
- Fault Management – Throw, Rethrow
- Resubmit error integration instances
- Creating Schedules – Basic and Advanced
- Global Variables
- Data Stitch

OIC Local File Server

- Overview of OIC Local file/ftp server
- How to enable Local File Server
- Managing folders and permissions
- Creating Connection for Local File Server
- Use Local File Server for read/write operations
- Managing files using WinSCP/FTP Client for Local File server

Project work and Integration Use Cases

- Invoke SOAP, Map and Expose as SOAP
- Receive data as SOAP input and Write to FTP

- Read JSON data from FTP and return as JSON in REST GET operation
- Read XML data from FTP and return as JSON in REST GET operation
- Download ZIP from FTP, extract the files and write them to FTP
- Download ZIP of csv files, extract, convert them to xml, zip xml files and write them to FTP
- Invoke REST and Expose data as SOAP
- CSV with multiple records, read and generate XML file for each record
- Process multiple files (csv) from File System using File Poll Read operation, process and generate XML files on FTP
- Read multiple files from FTP, process and write them in a different format in File system

Data mapping

- Data Transformations
- Visual Mapping
- Source Code of Transformation
- XPath functions
- Lookups (Map Code Values)
- Content Based Routing
- Define Content Based Routing
- Adding Filter & Routing Expressions
- Routing Path & Mapping Data

Maintenance of Integrations

- Packaging Integrations
- Viewing/Creating/Exporting Packages
- Versioning Integrations
- Activation/Deactivation of Integrations
- Monitoring Integrations, Activity Stream, Agents & Schedules
- Tracking messages
- Admin/monitoring REST APIs

2. Oracle Fusion Technical

Introduction to Fusion Applications

- Architecture of Fusion Applications
- Overview and Accessing Fusion Applications UI
- Fusion Navigator and Tools section
- Introduction to Setup & Maintenance

Inbound Integration to Fusion – FBDI

- Explore Migration and Inbound Integration methods
- Inbound Integration with File Based Data Import (FBDI)
- Understanding FBDI concepts
- Dealing with FBDI templates and Oracle documentation

- Preparing the Data using FBDI template
- Uploading CSV/ZIP files to UCM
- Scheduling the required jobs to trigger FBDI
- Monitor the FBDI process
- Check for errors and cause using Log files

Inbound Integration to Fusion – HDL

- Explore Conversion and Inbound Integration mehods
- Inbound Integration with HCM Data Loader (HDL)
- Understanding different Business Objects in HDL
- Preparing Pipe Delimiter file for HDL
- Understanding Import and Load Errors
- Monitor the HDL process
- Check for errors and cause using Log files

Fusion Reporting – BIP, OTBI

- Understanding of Subject Areas
- BIP Reporting
- Create Datamodel
- Add input params
- Create BIP report
- Configure for different formats
- Create default template
- Download Report
- Schedule BIP Report for output to UCM
- Schedule BIP Report for output to Email
- Create custom BIP Job
- Schedule custom BIP Job using ESS
- OTBI Reporting
- Build Analysis
- Use Sorting of Data
- Configure pagination
- Create Filters
- Create Filters of type Top n
- Use aggregate functions to group the data
- Add Bar Graph in Analysis
- Add Pie Chart in Analysis
- Create Dashboard Prompts
- Link Dashboard Prompt to Analysis
- Build Dashboards
- Add Dashboard prompts to Dashboard
- Add multiple analysis to Dashboard
- Get bookmark link of Dashboard

- Export data to different formats

Oracle Enterprise Scheduler (ESS)

- Overview of the Schedule Process interface in Fusion Apps
- Scheduling a job
- Monitoring the job execution
- Downloading the log files of processes
- Managing Enterprise Jobs through setup and maintenance

UCM (Oracle Universal Content Management) – File Import and Export

- Introduction to UCM accounts
- Searching for files in Content server
- Publishing BI reports to UCM
- Publishing Scheduled Job output to UCM

3. Advanced Live Integrations with Fusion SaaS- Automation

Report Integration – Fusion Integration using Fusion SOAP services

- Run report and Extract data of BIP using Report Service
- Integration for invoking ReportService
- Invoke ReportService on Fusion SaaS by passing the required inputs
- Download the report to on-premise file system/FTP
- Manipulate the report data using xml schema
- Extract the data and send them to FTP server in a separate file for each record
- Expose as REST to accept Params
- Send multiple params as input to Datamodel

FBDI Automation – Fusion Integration using ERP Cloud Adapter

- FBDI – End to end Integration using OIC/Orchestration
- FBDI using Oracle ERP Cloud Adapter
- Read FBDI input data from FTP
- Invoke Import Data operation of ERP Cloud Adapter
- Get status of the Process
- Wait until the process is completed
- Download the FBDI Logs
- Write the logs to FTP folder
- Repeat the same Automation using ERP Integration Webservice

Extract suppliers – Integration Using Fusion REST API

- Extract all the suppliers from Fusion
- Extract the suppliers and use various params for filtering
- Discuss about JSON structure received from Fusion
- Extract a specific supplier using supplier id as REST template param
- Discuss about Template Params with the example

Worker Load – Integration using HDL Load

- Read Data from worker input file from SFTP
- Validate by using BIP Report using SOAP WSDL

- Convert the data into HDL format
- Import Worker data into HCM Application through HDL
- Get status of Import and Load Worker data
- Generate Validation Report