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## SAP CPI\_PIPO LOT Course Structure

SAP PIPO\_CPI LOT provides exposure to the Integration technologies for SAP. The following table lists the course structure for SAP PIPO\_CPI LOT.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Course** | **Duration** | **Remarks** |
| 1 | Power skills ( Behavioural) -Foundation – session 1 | 1 | Full Day of Power skills |
| 2 | Basic ABAP | 3 |  |
| 3 | Power skills ( Behavioural ) -Foundation – session 2 | 0.25 | 2.5 Hrs. of Power skills |
| 4 | Basic ABAP Contd | 2.75 |  |
| 5 | Groovy | 2 |  |
| 6 | Power skills ( Behavioural ) -Foundation – session 3 | 0.25 | 2.5 Hrs. of Power skills |
| 7 | Groovy Contd | 0.75 |  |
| 8 | Mod 1 Practical Test | 0.5 | Module Assessment in First Half |
| 9 | PIPO | 3.5 |  |
| 10 | Power skills ( Behavioural ) -Foundation – session 4 | 1 | Full Day of Power skills |
| 11 | PIPO Contd | 4 |  |
| 12 | Power skills ( Behavioural ) -Foundation – session 5 | 1 | Full Day of Power skills |
| 13 | PIPO Contd | 2 |  |
| 15 | PIPO - Sprint Implementation(Case study) | 2 |  |
| 16 | Power skills ( Behavioural ) -Foundation – session 6 | 0.25 | 2.5 Hrs. of Power skills |
| 17 | CPI | 4.75 |  |
| 18 | Power skills ( Behavioural ) -Foundation – session 7 | 0.25 | 2.5 Hrs. of Power skills |
| 19 | CPI Contd | 1.75 |  |
| 21 | Power skills (Behavioural ) -Foundation – session 8 | 1 | Full Day of Power skills |
| 22 | CPI Contd | 2 |  |
| 23 | Power skills ( Behavioural ) -Foundation – session 9 | 0.25 | 2.5 Hrs. of Power skills |
| 24 | CPI Contd | 0.75 |  |
| 26 | CPI - Sprint Implementation(Case study) | 2 |  |
| 27 | Sprint Evaluation | 1 |  |
| 28 | L1 Preparation | 1 |  |
| 29 | L1 Test | 1 | L1 Assessment (MCQ - Concept & Code-based Qs) |
| **Total Training Duration** | | **40** |  |

**SAP CPI\_PIPO Curriculum**

**Basic ABAP**

**Program Duration**: 5.75 Days

**Contents**:

* R/3 Architecture
  + Know the meaning of ERP and SAP
  + Understand the R/3 system
  + Understand the Basics of SAP
  + Log on to SAP and do the Basic Navigations
* ABAP Programming
  + Understand the Need for ABAP
  + Know the types of ABAP/4 Programs
  + Create Reports
  + Write the Program Code
  + Test the Program
  + Know ABAP/4 Language Elements
  + Combine similar statements to one statement
  + Illustrate Defining Data Types and Data Objects
  + Recognize the System Variables
* Selection Screens
  + Parameters
  + Select Options
* Data Dictionary
  + Use Data Dictionary to maintain Database Objects
  + Domain
  + Data Elements
  + Transparent Tables
  + Structures – Flat
  + Database Views
* Internal tables
  + To Define a Standard Internal Table and understand its attributes.
  + To Add, Read, Update and Delete Data from a Standard internal Table
  + To Sort the Contents of a Standard Internal Table
* Classical Reporting
* Modularization
  + Subroutines
  + Functions Modules
* ALE IDOCS – Overview, Theory
  + Introduction
  + Business Utilization
  + IDOC
  + ALE
  + Inbound / Outbound Processing
  + Introduction to EDI
* Introduction to SAP HANA
  + Introduction to SAP HANA
  + Evolution of ABAP For SAP HANA
  + HANA Architecture
  + SAP In-Memory
  + SAP HANA Database Concepts
  + Row Store
  + Column Store
  + Database Compression
  + Code Pushdown
* Introduction to CDS - Theory
  + CDS in ABAP
  + Demo on CDS
  + CDS View Definition Features
* ODATA gateway / web services - Overview, Theory

**Groovy**

**Program Duration: 2.75 Days**

**Contents:**

* Understanding Where Groovy Fits
  + Meeting the Groovy Language
  + Finding Groovy’s Fit
  + Getting up and Running with Groovy
  + Diving Deeper with the Groovy Shell
* Introducing the Groovy Language
  + Creating Standalone Groovy Scripts
  + Working with the Groovy Compiler
  + Exploring Groovy's Arithmetic Operators
  + Working with Variables in Groovy
* Solving Problems with Groovy
  + Controlling Program Flow with Conditional Logic
  + Controlling Program Flow with the If Statement
  + Exploring the Switch Statement
  + Working with While Loops
  + Creating a More Elegant Solution with For Loops
* Creating Object-oriented Programs with Groovy
  + Understanding the Need for Classes
  + Creating Your First Class
* Peering into the Future of Groovy
  + Looking to the Future
  + Managing Multiple Versions of the Groovy Language
  + Getting Your Feet Wet with Groovy's New Features
  + Achieving Syntactical Parity with Java

**SAP PI/PO**

**Program Duration**: 9.5 Days

**Contents**:

* PI Basics
* SAP Landscape Overview
* What is Middleware/Integrations
* SAP Middleware/Integration tools
* Overview - PI / PO
* Log on to SAP PI and do the Basic Navigations
* PI, SLD, ID
* SLD
* ESR
* ID
* Basic Pass-Through Scenario
* PI Mapping Techniques
* Structures - Data Type, XSD, WSDL
* Mapping Functions - Standard / Custom
* Boolean
* Arithmetic, Date
* Node, Conversions
* Simple Graphical Mapping
* End to End Scenario with Transformation
* Integration Directory
* What is Adapter?
* Different Adapters in PI
* ID Advance
* Proxy Framework
* Sync / Async
* Idoc to File Scenario
* File to IDoc Scenario
* PI Monitoring & Operations Overview
* PI Monitoring
* NW Administrator
* Transport Mechanism
* Proxy to File / File to Proxy scenario
* Advance Topics
* Java XSLT Mapping
* Eclipse, NWDS, Iflows
* BPM Overview
* RFC, RFC lookup
* JDBC Lookup
* Parameterized Mapping
* SOAP to REST / Idoc
* Connection protocol overview, 1 hour session
  + How PI or CPI is connected to SAP HANA on premises and cloud SAP HANA.

**SAP CPI**

**Program Duration**: 9.25 Days

**Contents**:

* Overview of BTP and components of Integration Suite – Theory – 1 Hour
* CPI Basics
* What is OP Vs OD, Cloud, Infrastructure, Applications?
* SAAS/PAAS/IAAS, SAP Cloud, then SAP CPI
* Overview- Cloud Platform Integration
* CPI Content Catalog
* Log on to SAP CPI and do the Basic Navigations
* CPI Design Integration flow Basics
* Design Home Page
* Integration Flow
* Available options in CPI (Content Modifier, etc.)
* Integration Flow Build Page
* CPI Mapping Techniques
* Standard Functions
* Custom function in mapping
* Mapping Functions/Types (XSLT and Graphical)
* Events, Local subprocess
* SOAP to HTTP Scenario
* CPI Monitoring & Operations Overview
* Overview
* Monitor Message Processing
* Manage Integration content
* Manage security
* Manage Stores
* Test Connectivity
* Adapters in CPI
* What is Adapter?
* Different Adapters in CPI
* SOAP to Webservice
* Reverse Proxy
* What is reverse Proxy?
* Web dispatcher overview, Cloud Connector Overview, Advantages
* Connecting On-premises
* Usage, License, Comparison
* CPI Design Integration flow Advance
* Advanced Pallet Functions (DataStores, Converters, Routing, Signatures, encryption, and decryption)
* Version Mgmt., Tenant Mgmt. & Naming Standards on Multiple Landscapes
* Introduction to Groovy & Java Script. Groovy Self Learning Exercise Recap
* Groovy - Exception Handling with Payload attachment via Email & Monitoring