

SAP ABAP Object Oriented Programming (OOP) Lets code Class

Requirement: Having Basic Knowledge of SAP ABAP programming

Introduction:

Object Oriented Programming approach has many advantages comparing to other programming approaches . one of them is, more powerful in data management.

Because of these advantages, many of programming language implement this programming approach.

SAP ABAP runtime has supported object-oriented programming approach, form a long time ago. so, there are many of SAP features using this programming approach, such as: BADI, Reporting (ALV Grid OOP) , Webdynpro and so on . and of course, there will be more of sap features by using this programming approach. so as SAP Developer you have to master this programming approach, if you want to always be on top of sap technologies.

this Course provide the basic intermediate and Advance level of OOP material in SAP ABAP with Design patterns, SOLID principle. if you have more experience with procedural ALV grid (REUSE_ALV_GRID_DISPLAY), you will find more advantages if you use this type of ALV.

Course Content

Total duration: 30 hours

1. Introduction to Object-Oriented Programming

- Explaining the Object-Oriented Programming Model
- Basic Artifacts and common terminology

2. General concept of OOPS (class , Attribute & method) in SAP ABAP

- Creating Local Classes
- Creating Objects
- Accessing Methods and Attributes
- Visibility (public , Private , Protected)
- Implementing Constructors in Local Classes
- Implementing Class Constructors in Local Classes

3. Inheritance and Casting

- Implementing Inheritance
- Implementing Upcasts Using Inheritance
- Implementing Polymorphism Using Inheritance
- Implementing Downcasts Using Inheritance

4. Interfaces and Casting

- Defining and Implementing Local Interfaces
- Implementing Polymorphism Using Interfaces
- Integrating Class Models Using Interfaces

5. Object-Oriented Events

- Implementing Events in Local Classes
- Implementing Events in Local Interfaces

6. Object-Oriented Repository Objects

- Creating Global Classes
- Defining and Implementing Global Interfaces
- Implementing Inheritance in Global Classes

7. ABAP Object-Oriented Examples

- Using the ABAP List Viewer (ALV)
- Describing Business Add-Ins (BAdIs)

8. Global Classes in ABAP Development Tools

- Developing Eclipse-Based ABAP Programs

9. Class-Based Exceptions

- Explaining Class-Based Exceptions
- Defining and Raising Exceptions
- Implementing Advanced Exception Handling Techniques

10. Object-Oriented Design Patterns and SOLID principle

- Implementing Advanced Object-Oriented Techniques
- Implementing the Singleton Pattern
- Implementing Factory Classes Using Friendship

11. Runtime Type Services

- Using Runtime Type Identification (RTTI)

12. Unit Testing

- Unit Testing with ABAP Unit
- Team Seam and Injection

13. ALV GRID OOPS

- Overview
- ALV Grid OOP (Standard)
- ALV Grid OOP with docking container (Fullscreen)
- Displaying Icon in ALV Grid OOP
- Coloring lines & Cells in ALV Grid OOP
- Hiding Standard Toolbar in ALV Grid OOP
- Setting Clickable & Editable to Cells in ALV GRID OOP
- Catching Event Click & Double Click in ALV Grid OOP
- Catching Event edit finished in ALV Grid OOP