Brief Introduction:
ABAP (Advanced Business Application Programming)

SAP ABAP is one of the many application-specific fourth-generation languages. Duties of an ABAP'er would include developing and maintaining programs to enhance the assigned application module using the SAP Development tools. Collaborate with the SAP Project Management, Business and Systems Analyst and user departments to develop specifications for system enhancements for continuous functional improvement. Develop Test Plans and automated scripts to assure expected performance quality levels meet standards in development efforts. Implement technical architecture surrounding the package.

INTRODUCTION TO S4 HANA ABAP:

SAP ABAP (Advanced Business Application Programming) is a high-level programming language developed by the German software company SAP SE. ABAP is the primary language used for programming SAP applications, and it plays a crucial role in the customization and development of SAP software solutions. Here are key aspects of SAP ABAP:

Integration with SAP Systems:

ABAP is specifically designed for developing applications within the SAP ecosystem. It is used for customizing existing SAP applications, creating new applications, and enhancing the functionality of SAP software.
Data Dictionary:

ABAP includes a robust Data Dictionary that allows developers to define and manage database objects such as tables, views, and indexes. This is integral to the creation and management of data structures within SAP applications.
Reporting:

ABAP is widely used for developing reports within SAP systems. It allows developers to extract, manipulate, and present data in various formats to meet specific reporting requirements.
User Interface (UI) Development:

ABAP enables the creation of user interfaces for SAP applications. Developers use ABAP to design screens, input forms, and dialog boxes that users interact with when using SAP software.
Business Logic:

ABAP is used to implement the business logic of SAP applications. This includes defining rules, calculations, and workflows that govern how the system processes and handles data.

Course Curriculum:

What is ABAP?
Logon to SAP Environment
Transaction Codes
Multitasking Commands
Comments
Errors

ABAP/4 Editor (SE38)

Steps for Creating a Program
Elements in R/3 Screen
Out put Statements
Operators in ABAP
Data, Parameter & Constant Statements
Data Types & Classification
Data Objects & Classification
Text Elements
String Operations
Control Statements
Field strings

ABAP DICTIONARY

ABAP Dictionary Introduction
Data Dictionary Functions
Data Dictionary Objects
Data Base Tables
Structures
Views
Data Elements
Type Groups
Domains
Search helps
Lock objects
Primary Key And Foreign Key
Table Maintenance Generator

PACKAGES

Creating a package

Difference between local objects & packages
Transferring local objects to packages

VARIANTS

Variants Introduction
Creating variants in ABAP Editor & Data Dictionary

MESSAGE CLASSES

Message Class Introduction
Message types
Calling message class in Report & Dialog programs

SELECTION SCREENS

Selection screen Introduction
Screen table and its fields
Parameter Statement
Select-options Statement
Selection-screen Statement
Dynamic screen modification by using Modif Id key

OPEN SQL STATEMENTS

Select
Insert
Modify
Update
Delete

INTERNAL TABLES

Internal Tables Introduction
Declaring Internal Table
Populating Internal Table
Processing Internal Table
Initializing Internal Tables
Inner Joins And For All Entries
Control Break Statements

DEBUGGING TECHNIQUES

Debugging Techniques Introduction
Break-points (Static & Dynamic)
Watch points
Dynamically changing internal tables contents in Debugging Editor
Options to step through the program in Debugging Editor

MODULARIZATION TECHNIQUES

Modularization Techniques Introduction
Includes

Subroutines
Passing Parameters to Subroutines
Passing Tables to Subroutines
Function Groups & Function Modules

REPORTS

Reports Introduction
Classical Reports
Interactive Reports
Techniques Used For Interactive Reports
Hotspot
Hide
Get Cursor

ALV REPORTS

ALV Reports Introduction
ALV through Function Modules
ALV Types

DIALOG / MODULE POOL PROGRAMMING/ TRANSACTIONS

OG / MODULE POOL PROGRAMMING/ TRANSACTIONS
MPP Introduction
Relationship between Screen, Flow Logic and Program
Flow Logic Events
Process Before Output (PBO)
Process After Input (PAI)
Process On Value Request (POV)
Process On Help Request (POH)
Include Programs in MPP
Include TOP
Include I01
Include O01
Include F01
Dynamic Screens
Leave Screen
Leave to Screen
Call Screen
Set Screen
Processing of List from Transaction and Vice Versa
Elements in Screen Layout
Table Controls
Step Loops
Tabstrip Controls
Subscreens

BATCH DATA COMMUNICATION

BDC Introduction
Recording
BDC Methods
Call Transaction Method

Session Method
Handling Table Controls in BDC
Legacy System Migration Workbench
Different Methods
Flat file creation
Uploading data
File Handling
Application Server
Presentation Server

SAP SCRIPTS

SAP Scripts Introduction
Components of SAP Scripts
Layout Set
Standard Text
Out Put Program
Modifying Standard SAP Script Layouts
Including Logos
SAP Script Utilities - Upload / Download
Smart Forms Introduction
Graphics Management
Style Maintenance
Paragraph Formats
Character Formats
Writing print program and designing layouts

SMART FORMS

Smart Forms Introduction
Style Maintenance
Graphics Management
Paragraph Formats
Character Formats
Writing print program and designing layouts

Runtime Analysis & SQL Tracing

CROSS APPLICATIONS
Introduction to Distributed Environment
Introduction to Cross Applications

RFC

Introduction to RFC
Creating RFC Destination between 2 Systems
Creating Remote Enabled Function Modules
Creating program using Remote Enabled Function Modules

ALE

ALE Basics
Overview of Outbound & Inbound Process
Configuration Steps
Define logical systems
Assign client to logical system

RFC destination
Customer distribution model
Creating Ports

IDOCS

ALE Basics
Overview of Outbound & Inbound Process
Configuration Steps
Define logical systems
Assign client to logical system
RFC destination
Customer distribution model
Creating Ports

EDI

EDI Basics
Difference between ALE & EDI
Overview of Outbound & Inbound Process
Configuration Steps
Port Creation
Partner Profile Creation

USER EXITS

User Exits Overview
Types of User Exits
Field Exit
Screen Exit
Function Exit
Menu Exit

BAPIS

BAPI Overview
Creation of BAPI
WORKFLOW
What is workflow?
Overview of workflow

BADIS

BADIs Overview
Defining a BADI
Implementing a BADI

OOPS CONCEPT

Object Oriented ABAP Overview
Defining a Class
Implementing a Class

MISCELLANEOUS TOPICS

Correction & Transport request (CTS)
Transport Organizer
Work Bench Request
Task Creation
Release Objects
SAP Memory & ABAP Memory
Logical Database
SD Flow
MM Flow

KEY HIGHLIGHTS:

Comprehensive Curriculum:
A well-designed training program covers a comprehensive curriculum that includes fundamental and advanced concepts of SAP ABAP. This may include topics like data dictionary, ABAP programming constructs, SAP scripting, and more.

Hands-On Practical Training:
Practical exposure is crucial in SAP ABAP training. Look for programs that provide hands-on exercises, real-world scenarios, and access to a live SAP system for practical application of concepts.

Experienced Instructors:
Training programs are enhanced when led by experienced instructors who have practical industry experience with SAP ABAP. Instructors should be knowledgeable about current industry practices and SAP technologies.

Real-life Projects and Case Studies:
Engaging with real-life projects and case studies allows participants to apply their knowledge in practical situations, preparing them for actual challenges they might encounter in their careers.

Certification Preparation:

A good training program may include preparation for SAP ABAP certification exams, ensuring that participants are well-equipped to pass the exams and obtain SAP certifications.

Flexibility in Learning Options:

Different individuals have different learning preferences. Training programs that offer flexibility in learning options, such as classroom training, online instructor-led sessions, or self-paced e-learning, cater to diverse needs.

Post-Training Support:

Post-training support in the form of additional resources, forums, or consultation can be valuable. This support ensures that participants can clarify doubts or seek guidance after completing the formal training.
Career Guidance and Placement Assistance:

Some training providers offer career guidance, resume building, interview preparation, and even job placement assistance. This can be beneficial for individuals looking to enter or advance in the SAP job market.

Interactive Learning Environment:

An interactive learning environment, which may include discussions, Q&A sessions, and collaboration with fellow participants, enhances the overall learning experience.

Up-to-Date Content:

The SAP ecosystem evolves, so training content should be up-to-date with the latest advancements in SAP ABAP and related technologies.

CAREER OPPORTUNITIES:

Professionals trained in SAP ABAP (Advanced Business Application Programming) have a range of career opportunities in the field of SAP and enterprise software development. Here are some common career paths for SAP ABAP-trained professionals:

SAP ABAP Developer:

The most straightforward path is to work as an SAP ABAP Developer. In this role, professionals are responsible for designing, coding, testing, and implementing SAP solutions using ABAP.

SAP Technical Consultant:

Technical consultants specializing in SAP often need strong ABAP skills. They work on implementing, customizing, and optimizing SAP solutions to meet the specific needs of clients.

SAP Integration Specialist:

Professionals with SAP ABAP skills may specialize in integration, working on connecting SAP systems with other enterprise applications, external systems, or cloud platforms.

SAP Fiori Developer:

With the rise of SAP Fiori as a user experience design approach, ABAP professionals can specialize in developing Fiori apps, enhancing the user interface and overall user experience of SAP applications.

SAP S/4HANA Developer:

As organizations transition to SAP S/4HANA, there's a demand for developers who can work with the new architecture. ABAP skills are crucial for adapting existing solutions or creating new ones in the S/4HANA environment.

SAP Security Consultant:

Security is a critical aspect of SAP implementations. ABAP professionals may focus on SAP security, ensuring that the system is protected from unauthorized access and maintaining compliance with security standards.

SAP Technical Architect:

Technical architects in the SAP domain design and oversee the technical aspects of SAP implementations. ABAP skills are valuable for understanding the technical landscape and ensuring optimal system performance.

ABAP Development Team Lead/Manager:

With experience, professionals can move into leadership roles where they manage ABAP development teams, coordinate projects, and contribute to overall IT strategy.

SAP Upgrade Specialist:

As SAP systems evolve, professionals with ABAP skills are needed to manage and execute system upgrades, ensuring a smooth transition to newer SAP versions.

Freelance/Consulting:

ABAP professionals may choose to work as freelancers or consultants, offering their expertise to multiple clients for specific projects, troubleshooting, or optimization tasks.

SAP Trainer:

Professionals with strong ABAP knowledge can transition into training roles, educating others on ABAP programming, SAP development best practices, and related topics.

Business Intelligence Developer (BW/4HANA):

ABAP professionals may extend their skills to work in SAP Business Warehouse (BW) environments or with SAP BW/4HANA, focusing on data modeling, extraction, and reporting.