SAP-ABAP
@
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Powered By: Mr. Sridhar Sunkari (18+ yrs Exp.) On-line & Class-Room Trainings	• **INDEPTH** • **UNCOMPARABLE** • **SUBJECT GUARANTEED**

- Leader in SAP Technical Modules Training

- Trained 1000's of students both in On-line and Class-room and also conducted **Corporate Trainings** for the IT COMPANIES which includes **TCS, WIPRO, CMC, VERIZON, GENPACT, SIERRA ATLANTIC, VOLKSWAGON, INDIAN RAILWAYS** and many more…

- Program Delivered by **Real-Time consultant** - **SRIDHAR SUNKARI** having over 18+ yrs of experience in different technologies

- Real-time Scenarios with In-depth and Advanced Topics covered

- Numero Uno in **CORE ABAP, OBJECT ORIENTED ABAP, CROSS APPLICATIONS, ABAP HANA, WEBDYNPRO, SAP UI5 Front-end** and **Back-end** Training

- Detailed Class-Room Notes will be provided, need not depend on any other material

- As an additional service, Daily e-mails will be sent containing day-day class-room session material

- Most of our old students are working in **TOP IT COMPANIES; we** welcome you to interact with our old or existing students before registration

- To attend online 2nd time for the same module, students need to register again

CORE ABAP

ERP INTRODUCTION

- Manual Business process and its limitations
- ERP Products
- Introduction to SAP and its Modules
- Role of ABAP Consultant in SAP Projects
- Role of ABAP Consultant in object Development

SAP R/3 ARCHITECTURE

- Application Server Services
- ABAP Workbench
- R/3 Landscape
- Client Concept in SAP

ABAP INTRODUCTION

- Repository and Dictionary Objects
- ABAP related Transaction Codes
- ABAP Programming Rules
- Data Types and Operators

ABAP BASIC STATEMENTS

- Data , Write ,Constant and Parameter Statements and their attributes
- CONDITIONAL and LOOPING Statements
- Check Boxes and Radio Buttons
- Submit, Import, Export keywords
- Field-symbols

STRING FUNCTIONS

- Shift
- Replace
- Translate
- Overlay
- Strlen
- Condense
- Concatenate
- Split

LOCAL STRUCTURES

- Creating Structures
- Nested Structures
- Including Structures
- Move and Move-Corresponding Statements

DICTIONARY OBJECTS

- Standard Database tables
- Types of DB tables
- Client Dependent Tables
- Client Independent Tables
- Table creation minimum settings
- Table creation using direct data types
- Table creation using data elements and domains
- Currency and Quantity fields
- Reference tables and Reference fields
- Dictionary Structures
- .Append and .Include Structures
- Table Maintenance Generator
- Events at Table Level
- Table Buffering
- Primary and Secondary Indexes
- Foreign key Relationship
- Check Tables and Value Tables
- Views
- View Cluster
- Lock objects
- Type-Groups
- Table Types
- Search Helps

DATABASE ACCESS

- Open and Native SQL statements
- Select, Insert, Delete and update statements
- Select-End Select
- Insert, Delete and Modify statements
- Select-single , Select up to 1 rows
- Cursors - Open SQL & Native SQL

INTERNAL TABLES

- Introduction and Necessity of Internal Tables
- Types of Internal tables
- Select-Options statement
- Ranges
- Append
- Describe
- Read
- modify
- Sort
- Clear
- Refresh
- Free
- delete
- Transporting keyword
- Collect statement

MESSAGE CLASSES

- Creating Message classes
- Types of Messages
- Using Messages

MODULARIZATION TECHNIQUES

- Internal and External Subroutines
- Actual and Formal Parameters
- Pass by Value and Reference
- Changing Parameters
- Passing Internal Tables as Parameters
- Include Programs
- Macros and Function Modules

FUNCTION MODULES

- Creating Function Groups
- Function Builder tool
- Types of Parameters in Function Modules
- Optional and Default Parameters
- Exception Handling in Function Modules

DEBUGGING

- Setting Break points
- Navigating through the breakpoints
- Setting Watch points

SELECTION SCREEN PROGRAMMING

- Creating Simple and Tabbed Blocks
- Creating Push Buttons and Labels
- Dropdown List boxes
- Grouping Selection screen elements
- Event Handling in Selection Screens
- SCREEN Structure
- Creating Sub-screens
- Creating Application. Toolbar Push Buttons Using Function Keys
- Menu Painter tool
- At User-command event
- At PF-Status event

REPORTS

- Classical Reports
  - Single Table
  - Multiple Tables using Joins
- Control-Break Reports
- Difference between at new and on change of events
- Interactive Reports using
  - System field SY-LISEL
  - HIDE Statement
  - Get Cursor Statement
- For All Entries
- Sequence of events execution
- Scheduling Reports in background statically and dynamically
- Background job overview
- Logical Database Reporting

MODULE POOL PROGRAMMING

- Introduction to Screen Painter tool
- Events in Module Pool
  - PBO, PAI, POV, POH
- Working with Table Control
- Tab Strip Control
- Designing Sub screens
- Modal Dialog boxes
- Drop Down List Boxes
- Navigating between Screens
- Select-option Functionality in MPP
- Field Validations
  - Automatic Field Validations
  - Flow Logic Validations
  - Module Pool Validations
  - AT Exit-Command
  - Chain-End chain

FILE HANDLING

- File Management on Presentation Server
- File Management on Application Server
- Working with Datasets
    - OPEN, READ ,CLOSE Dataset
    - Transfer statement
    - SET and GET Dataset
    - DELETE Dataset

BDC

- Direct Input Method
- Call Transaction Method
- Error Handling in Call Transaction
- Session Method
- Recording Transactions with single screen and Multiple screens
- BDC using Table Control
- Data Transfer in Background

LSMW

- Using Direct Input Method
- Using Batch Input Recording
- Transporting LSMW Settings

SMART FORMS

- Designing and Passing Data to Smart Forms
- Calling smart forms from Driver Program
- Working with Loop and Program lines
- Graphic Management in Smart forms
- Including Standard texts in smart forms
- Reading and Modifying Standard Texts Dynamically
- Transporting Standard Texts
- Copy Windows
- Working with Tables
- Alternative Conditions
- SMART STYLES
- Text Modules
- Working with Templates
- Control level events in smart forms
- Migrating Scripts to Smart forms
- Debugging Smart forms
- Converting Smart forms to PDF format
- Consolidated Example covering important nodes of smart forms

SAP SCRIPTS

- Designing SAP Scripts and Creating Print Program
- Types of Symbols in SAP Scripts
- Image Uploading and displaying in SAP Scripts
- Creating Standard Texts and including Standard Texts in Scripts
- Modifying Standard Layouts
- Differences between Scripts and Smart Forms

CORE-ABAP COMPLETED

OBJECT ORIENTED ABAP

OOPS CONCEPTS (Mandatory   for all SAP Technical Modules)

- Types of Programming Languages
- Applications of OOPS in SAP
- Features of OOPS concepts
- Introduction to CLASS and OBJECT
- Difference between structures and classes
- Creation of Classes in different Programming Languages
- Types of ABAP Classes
- Class-Components
- Visibility Sections
- Local Class Creation
- Global Class Creation using CLASS BUILDER Tool
- Instance and Static Attributes
- Instance and Static Methods
- RETURNING keyword / Parameter
- Exception Handling (Local & Global)
  - Standard Exceptions
  - Try and Catch Blocks
  - Standard Exception Messages
  - User Defined Exceptions
  - Raising Keyword
  - CLEANUP Block
  - Hierarchy of Exceptions
- ME Keyword
- LOAD keyword
- Converting Local class to Global class
- Creating T-codes for Methods
- Constructors
  - Instance Constructors
  - Static Constructors
  - Parameters to Constructors
  - Class Loading
- Inheritance (Local & Global)
  - Types of Inheritance
  - Hierarchy of Constructor execution
- Exception Classes with OTR
- Exception Classes with Message classes
- Modeled Classes
- Types and Macros Declaration in Classes

- Polymorphism
  - Method Overloading
  - Method Overriding
  - REDEFINITION Keyword
  - SUPER Keyword
- Final Classes and Final Methods
- Abstract Classes (Local & Global)
- Interfaces (Local & Global)
- Aliases (Local & Global)
- Implementing Interfaces Partially
- Visibility at Class levels
  - Public Classes
  - Protected Classes
  - Private Classes
  - Abstract Classes
- Friend Classes (Local & Global)
- DEFERRED Keyword
- Singleton Classes
- Persistence Service
  - GUID Object Identity
  - Business Key Identity
- Transaction Service
- Design Pattern Example
- Casting
  - Narrow Casting
  - Wide Casting
- RTTS and RTTC

EVENT HANDLING in Classes

- Introduction to events
- Procedure for Custom Event Handling
  - Local classes
  - Global classes
- Instance and Static Events
- Raising events
- Single and Multiple Event Handler methods
- Instance and Static Event handler methods
- Registering Handlers
- Deactivating Handlers
- FOR ALL INSTANCES Keyword
- Events with Parameters
- Events in Interfaces

OBJECT ORIENTED ABAP CONTINUED

ALV Reports using classes

- Introduction to ALV
- Linking ALV Classes
- Field Catalogue Generation
  - Using Function Module
  - Manually
  - Dynamic Field Catalog
- Layout Generation
- Variants in ALV
- Identifying Selected Rows in ALV grid
- Enabling Multiple selection of ALV rows
- ALV Cells as DROP DOWN List
- ALV Row, Column and Cell Coloring
- ALV Cells as Pushbuttons
- ALV columns as checkboxes
- ALV Toolbar buttons Exclusion
- ALV Toolbar buttons Enabling
- ALV Toolbar buttons Disabling
- ALV Columns as TRAFFIC LIGHTS
- ALV Grid Data Download to Excel
- ALV Report Background Scheduling
- Docking Container
- Subtotals and Subtotal texts

ALV Reports using FUNCTION MODULES

- SLIS Type-pool
- Field Catalog
- Layout Generation
- Classical ALV
- Interactive ALV
- Blocked ALV
- Hierarchical ALV

STANDARD EVENT HANDLING in ALV Reports using Classes

- Procedure for Standard Event handling
- Button_Click
- Double_Click
- Hotspot_Click
- User_Command
- Toolbar
- Menu_Button
- Explicit Registration of Events
- Top_of_Page
- Data_Changed
- Onf1
- Onf4
- PRINT Events
- Node_Double_Click
- Node_KeyPress
- Context_Menu_Request
- Splitter Control
- Displaying Images in ALV Reports using standard classes
- Tree Control

ALV OBJECT MODEL

STANDARD EVENT HANDLING in ALV Reports using Function Modules

- Standard Event handling Procedure
- Generating Heading using TOP_OF_PAGE
- Interactive ALV using USER_COMMAND
- Displaying Images in ALV reports using Function Modules

OBJECT ORIENTED ABAP COMPLETED

CROSS APPLICATIONS ABAP

RFC's

- Creating Remote Function Modules
- Creating RFC Destinations
- Synchronous RFC
- Asynchronous RFC
- Transactional RFC
- Calling RFC's Back

ALE – IDOCS

- Introduction to ALE and IDOC
- IDOC Related Objects
- Outbound configuration
- Inbound configuration
- Standard Selection programs
- Standard Posting programs
- Distributing Master Data
- IDOC Structure
- IDOC Related Tables
- Processing ERROR Idocs
- Sending Idocs to Multiple Recipients
- Introduction to Change Pointers
- Change Pointers Configuration
- Change Pointers Related Tables
- IDOC Data Filtering
- IDOC Segment Filtering
- IDOC Reduction
- IDOC Extension
- IDOC Download to EXCEL and HTML
- Custom IDOC configuration
- Writing Custom Outbound Selection Program
- Writing Custom Inbound Function Module
- Distributing Transaction Data using Message Control
- IDOC Archiving

LSMW

- LSMW using IDOC
- LSMW using BAPI
- Transporting LSMW

BAPI's

- BAPI Architecture
- BOR
- BAPI Function Module Standards
- Creating Custom BAPI's
- Invoking BAPI's from Legacy Applications
- Working with Standard BAPI's
- BAPI Enhancements and Modifications

SAP ENHANCEMENTS

Customer-Exits

- Identifying Customer Exits
- Function Exits
- Menu Exits
- Screen Exits

BADI's

- BADI Searching Techniques
- Validations using BADI's
- Menu Enhancements using BADI's
- Screen Enhancements using BADI's
- Filters in BADI's
- Difference between BADI's in 4.7 and 6.0
- Custom BADI Creation
- Fallback Class in BADI
- Difference between Customer-exits and BADI's

ENHANCEMENT FRAMEWORK

- Enhancement SPOTS
- Enhancement Implementations
- KERNEL BADI's
- Source-Code Enhancement
- Function Group Enhancement
- Class Enhancement

CROSS APPLICATIONS ABAP COMPLETED

PERFORMANCE ANALYSIS

- Runtime Analysis
- SQL Trace
- Performance Improving Techniques

TRANSPORT MANAGEMENT

- Creating Requests and Tasks
- Extended Program Check
- Releasing Tasks and Requests
- Version Management

MISCELLANEOUS

- Flow of Functional Modules
- Important Tables and T-codes
- Document Flow
- Types of SAP Projects
- Role of ABAP Consultant in different types of SAP Projects
- SAP Project Life cycle

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