**ABAP/4 Course Contents**

**INTRODUCTION TO SAP AND ABAP/4 LANGUAGE**

* **Overall introduction to ERP**
* **Introduction SAP R/3 architecture, Introduction to SAP ABAP/4**
* **ABAP/4 editor (Focus on the functionalities of new ABAP editor)**
* **Data types**
* **Output statements**
* **Writing small programs**
* **Arithmetic operations**
* **String operations**
* **Control statements**
* **Parameters**
* **Open SQL –statements {insert, modify, delete, update}.**
* **Simple reporting**
* **Selection screens**
* **Transaction code creation**
* **Data Dictionary**
  + **Tables**
  + **Data element**
  + **Domain**
  + **Structures**
  + **Search helps**
  + **Views**
  + **Type Groups**
  + **Table maintenance generator and T-code creation**
  + **Primary and foreign keys.**
  + **Check and value tables.**

**REPORTING**

* **Debugging techniques**
  + **Breakpoint creation.**
  + **Watch point creation.**
  + **Emphasize on the usage of New Debugger.**
  + **Modes of Debugging.**
  + **System Debugging.**
  + **Update Debugging.**
  + **Background Debugging.**
  + **Debugging Background Jobs.**
* **Internal tables**
  + **Declaration**
  + **Type Casting**
  + **Processing.**
  + **Population.**
* **Control Break Statements.**
* **Modularization techniques.**
  + **Includes.**
  + **Subroutines.**
  + **Function modules.**
  + **Macros**
* **Variants.**
* **Conversion exits.**
* **For all entries and joins {inner and left outer}.**
* **Message class creation & message types and handling messages.**
* **Events for classical reports.**
* **Events for interactive reports.**
* **Hide and hotspot.**
* **Creating and handling buttons.**
* **Menu painter.**

**ABAP OOPS**

* **Fundamentals of OOPS.**
* **Introduction to Local classes and methods**
* **Importance of Public, Private and Protected sections.**
* **Simple reporting using local classes and methods.**
* **Global classes and interfaces.**
* **Usage of global classes in the reports.**
* **Class Based Exception Handling Mechanism - Exception Classes.**

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| **ALV** |
| * **Introduction.** * **Types of ALV** * **Simple report to display simple ALV List using Function Modules** * **Simple report to display simple ALV grid using Function Modules.** * **Interactive ALV Reports.** * **Working with OOALV using classes (List, Grid).**   **DIALOG PROGRAMMING**   * **Introduction to screen painter and dialog programming.** * **Flow logic**   + **PAI.**   + **PBO.**   + **POV.**   + **POH.** * **Screen designing.** * **Programming in object browser.** * **Field validations.** * **Creation of**   + **Table Controls.**   + **Tab Strips.** * **Dynamic Screen.**   + **Call Screen.**   + **Set Screen.**   + **Leave to Screen.**   + **Leave Screen.** * **Processing of list from transaction and vice versa.** * **Screen table and its fields.** * **Lock objects.**   **INTERFACE PROGRAMMING** | |

* **Why Data Transfers**
* **Introduction to BDC.**
* **File Handling.**
  + **Presentation server.**
  + **Application server.**
* **Recordings.**
* **Methods in BDC.**
  + **Call transaction.**
  + **Session method.**
* **Error Handling in Call Transaction.**
* **Legacy System Migration Workbench (LSMW)**
* **Different methods.**
* **Steps to Create an LSMW Project.**
* **Flat file creation.**
* **Uploading data.**

**SAP Scripts**

* **Introduction.**
* **Layout Sets.**
* **SAP Script Elements.**
* **Modifying standard layout sets (by using subroutines).**
* **Including logo.**
* **SAP script Control Commands.**
* **SAP Scripts Operations using different standard RSTX\* Programs.**
* **Multi Language Handling in SAP Scripts.**

**SMARTFORMS**

* **Working with smart forms.**
* **Standard Texts.**
* **Graphics management.**
* **Writing print program and designing layouts.**
* **Output type configuration to standard orders.**

**FUNCTION MODULES**

* **Concepts of Function Group.**
* **Different Types FMs.**
* **Concepts of FM interface.**
* **Concepts of Update Programs.**

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| **IDOCS** |
| * **Concepts of IDOCS.** * **Structure of IDOCS and Types.** * **Creation of segments** * **Creation of IDOCS.** * **Using standard message types**  |  | | --- | | **ALE** | | * **Defining logical systems used for ALE interfaces.** * **Outbound / Inbound processing.** * **Transferring of master data from one system to another system.** * **Distribution modal view.** * **IDOC Programming / Custom IDOCS.**   **BAPI and Business Objects**   * **Introduction to BAPI** * **Overview of Business Objects.** * **Step By Step Approach followed to create BAPI.**   **ENHANCEMENTS**   |  |  | | --- | --- | | * **Introduction to enhancements.** * **Different Ways of doing Enhancements.** * **User Exits.** * **Introduction to BADI** * **How to implement BADI** * **Enhancement Framework** * **Explicit Enhancement** * **Implicit Enhancement** * **Overview on Enhancement Spots, Enhancement Section, Enhancement Implementations and Class Enhancements** | | | **SAP WORKFLOW**   * **Introduction of SAP WORKFLOW.** * **Introduction of different elements of Workflow.** * **Introduction to concepts of Binding.** * **Introduction to Business Object Events** * **Simple practical examples of SAP Workflow** |  | | | | |