**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**

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| **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**

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| * **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**
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| **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**
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