SI & T *info systems*
World Leader in System Integration & Technology Business Solutions

Call : 403 – 401 – 4125
info@sitinfosys.com

SAP EDUCATION

SAP ABAP (Advanced Business Application Programming)

SAP Net Weaver supports the ABAP programming language and its corresponding integrated development environment as a built-in capability of the application server. ABAP is especially designed for creating large-scale business applications, with dedicated features for developing backend business functionality, connecting applications, and provisioning services. IT professionals can use model-driven or code-driven tools to develop and configure user interfaces for web-based business applications.

Delivery Type: Class – Room Instructor Led

Locations: Calgary, Edmonton, Vancouver, Ottawa, Montreal & Toronto

COURSE CONTENTS

✈ Fundamentals of SAP Net Weaver Application Server:

- Basic Introduction to SAP Net Weaver
- Navigating in SAP Systems
- SAP Net Weaver Application Server Architecture
- Overview of the SAP development environment
- Communication and Integration Technologies
- Introduction to SAP System Administration

✈ ABAP Work Bench Foundations:

- Create ABAP Programs and Repository Objects using appropriate ABAP Workbench Tools
- Navigate in the Work Bench and use the syntax help
- Process Source text with the ABAP Editor
- Test Programs using the Debugger
- Project – Oriented development using the Transport Organizer
- Overview of important ABAP Statements
- Define elementary and structured data objects
- Working with internal tables
- Use function groups and function modules
- Use of classes, methods and BAPIs
- Database dialogs: information about database tables in the ABAP dictionary, read database tables
- User dialogs: List, selection screen, screens, ABAP Web Dynpro (from SAP Net Weaver 7.0)
- Overview of the different options for adapting software

✈ ABAP Objects, Advanced ABAP:

- Analyze and design classes (UML)
- Classes, instances, references
- Inheritance, interfaces, polymorphism
- Events
- Special Object – Oriented Techniques
- Global classes / Interfaces (Class Builder)
- Class – Based exception concept

- ABAP Run – Time Environment
- Program calls and memory management
- Shared Objects
- ABAP types and data objects in detail
- Unicode
- Work with internal tables in detail
- Work with field symbols and data references
- Dynamic Programming
- Runtime type information, runtime type creation
- Complex Open SQL statements
- Analysis tools for programs
- Recommendations and conventions
- Performance rules

✈ ABAP Dictionary:

- Terms and Functions of ABAP Dictionary
- Type definitions in ABAP Dictionary
- Tables, includes and appends
- Performance aspects when accessing tables
- Relationships between tables
- Dependencies between objects in the ABAP Dictionary
- Views and append views
- Search help and append search help

✈ ABAP Performance Tuning:

- Individual object analysis: Transaction step analysis, SQL Performance Analysis, ABAP runtime analysis, ABAP Debugger, optimizing database accesses
- Unsuitable access path: Introduction to database indexes, create, change and delete database indexes, DB views or ABAP Joins and database indexes, Open SQL Statements and database Indexes
- Suitable access paths: accessing individual tables, accessing multiple tables, accessing pool and cluster tables, SAP table buffering
- Optimizing use of internal tables: design and definition of internal tables, efficient structure, efficient access, applications
- SAP system analysis – overview
- SAP Workload Analysis (Transaction Profiles)

✈ Programming ABAP Reports:

- Data Retrieval: Selection Screens
- Logical databases & Open SQL
- Programming with the SAP List Viewer (ALV):
- Using ALV for Display Tables
- Starting ALV functions from the application
- Adjusting the layout
- Using display variants
- Processing user actions

✈ Screen – Based Dialogues and Programming Updates:

- Principles and ergonomics of user dialogs
- User Interface and Menu Painter
- Screen Objects: attributes, implementation and Processing
- Screen Painter
- Text Fields, Frames, status icons, input / output fields, dropdown list boxes etc
- Context Menus
- List Processing in dialog programming
- Open SQL Statements from ABAP for changing the contents of database tables
- The LUW concept
- Use of the SAP Locking Concept
- Database changes from dialog programs using suitable techniques: Inline updates, synchronous, asynchronous and local updates in V1 and V2 mode
- Implementation of complex transactions

✈ ABAP Dialogue Programming Using Enjoy SAP Controls:

- Function and use of the Control Framework
- Integrate and call controls
- Data transport between ABAP programs and controls
- Change control attributes
- React to actions in the control
- Context menus
- Drag and drop functionality
- Combination of Enjoy SAP Controls with other ABAP dialog Forms

- Function scope and use of selected Enjoy SAP Controls: HTML control, picture control, text edit control, ALV grid control, tree control

✈ Reporting, Quick Viewer, Info set Query and SAP Query:

- Quick Viewer
- Info Set Query: Lists & User administration
- SAP Query: Lists & User administration
- Creating Info Sets
- Transport

✈ Modifications, Enhancements and Enhancement Framework:

- Enhancements to: Elements of the ABAP Dictionary
- SAP Programs, Screen Menus, Screens
- Enhancement Techniques to: Elements of the Dictionary
- Enhancements via customer exits
- Business Transaction Events (BTEs)
- Business Add Ins (BAdls)
- User Exits
- Modifications: Procedure, Utilities, Modification Adjustment
- SAP Note Assistant
- Enhancement Points
- Enhancement Sections
- New BAdls
- Switch Framework

CONTACT US

Course schedule information is available on **www.sitinfosys.com**

Please check with us for the latest information.

SI & T Infosystems
*Phone: **(403) 401 - 4125***
*Email: **info@sitinfosys.com***