

SAP ABAP BOOTCAMP

SUMMARY

SAP ABAP (Advanced Business Application Programming) :

ABAP is one of the many application-specific fourth-generation languages (4GLs) first developed in the 1980s. It was originally the report language for SAP R/2, a platform that enabled large corporations to build mainframe business applications for materials management and financial and management accounting.

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Session 1: Why ERP? Why SAP?

Functional & Technical Modules in SAP

Session 2: Introduction to ABAP/4

Overview: Reports/BDC/Dialog Programming/Scripts/Enhancements

SAP R/3 Architecture: Presentation/Application/Database Layers

Session 3: Introduction to IDES

Logon to SAP

Introduction to SAP Easy Access screen

Introduction to Transaction Codes (Tcodes)

Session 4: Introduction to ABAP Editor

Understanding SAP naming conventions

Introduction to ABAP DEVELOPMENT WORKBENCH (SE80)

Input / Output statements (WRITE)

Formatting Options

Creating a Package/Development Class

Session 5: Introduction to DATA Objects

Data Types: Elementary/Complex

Understanding Elementary Data Types
Creating Complex Data Types

Session 6: Conditional Statements

IF...ENDIF

CASE...ENDCASE

AT – END AT... New / Last / END of... (Covered in Interactive reports)

Session 7: Introduction to System Fields: SY-*

Looping Statements: DO...ENDDO.

WHILE...ENDWHILE.

SELECT...ENDSELECT.

LOOP...ENDLOOP.

Loop Terminators: Exit/Continue/Check

Session 8: Introduction to ABAP DICTIONARY (SE11)

Introduction to Database Tables

Differences between Transparent/Cluster/Pool Tables

Data Element/Domain Concept

Top Down/Bottom up Approach

Session 9: ABAP DICTIONARY (SE11) Cont...

Reviewing Data Element & Domain In depth

QUAN/CURR Fields Concepts

Buffering Techniques

Creating a Table Maintenance Generator

Session 10: ABAP DICTIONARY (SE11) Cont...

Creating STRUCTURES

APPEND/INCLUDE Structure

VIEWS: Different Types of Views

Session 11: ABAP DICTIONARY (SE11) Cont...

Creating SEARCH / F4 HELP

Creating LOCK OBJECT

Session 12: Working with Transparent Tables: (Open SQL)

Insert Records

Display Records

Modify / Update Records

Delete Records

Session 13: Understanding Foreign Key Concept

Creating Foreign Key Relation between two Tables

VALUE Table concept and CHECK Table Concept

Session 14: Internal Tables

Types of Internal Tables: Standard/Sorted/Hashed
Body/Header Line Concept
Occurs 0 Concept
Creating/Populating/Processing Internal Tables

Session 15: Internal Tables Cont...

Processing Internal Tables: Process Operations
Loop...Endloop.
Read Statement
Append
LOOP
CLEAR / Refresh / FREE
INSERT / Modify / Delete / SORT / Describe

Session 16: Introduction to Open SQL

Work area: Implicit/Default
Working with SELECT...ENDSELECT with different combinations
Working with SELECT SINGLE *

Session 17: SQL Queries

Using INNER JOINS
Using FOR ALL ENTRIES
INSERT / DELETE / MODIFY

Session 18: Introduction to Text Maintenance

Selection-Text/Text-Element Concept
Creating a Message Class
Types of Messages: I/S/W/E/A/X

Session 19: Modularization Techniques:

Working with Macros
Working with Includes
Sub-Routines: Creating Subroutines

Session 20: Modularization Techniques: Cont...

Introduction to Function Modules (SE37)
Creating a Function Group
Creating a Function Module
Calling a Function Module from ABAP Editor
Passing Internal Table to a Function Module
Upload/Download Function Modules

Session 21: Classical Reports:

Types of Reports: Classical/Interactive/ALV
SELECTION-SCREEN/PARAMETERS

Events in Classical Reports
Creating Selection-Screens
Creating & Transporting Variants

Session 22: Creating a Classical Report using different Events

Introduction to Transaction Maintenance (SE93)
Creating a Report Transaction

Session 23: Introduction to Interactive Reports

Events in Interactive Reports
Creating Interactive Reports
ABAP Memory vs SAP Memory

Session 24: SAP Transport Organizer:

Creating Requests
Releasing Requests
Transporting Requests
ABAP Trouble Shooting:
Debugging Techniques
Runtime Analysis
SQL Trace
Extended Program Check

Session 25: Introduction to ALV's

Function Modules used in ALV's
Creating ALV Reports

Session 26: Interactive ALV Reports

Customizing ALV Report

Session 27: Introduction to Dialog Programming (Transaction)

Introduction to Screen Painter (SE51)
Understanding Screen Layout & Flow logic
Events in Dialog Programming: PBO/PAI / POH / POV
Creating a complete Dialog Program with a TCode
Screen Validations in Dialog Programming

Session 28: Creating a Table Control

Session 29: Creating a Tab Strip Control & Introduction to Menu Painter

Session 30: File Handling Techniques

STRING Operations
Presentation server files
Application server files
Usage of TCodes – CG3Y / CG3Z

Session 31: BDC (Batch Data Communication)

Types in BDC's

Difference between CALL TRANSACTION & SESSIONS Method

Working with SHDB Recording Method

Session 32: Creating a BDC using CALL TRANSACTION Method

Error handling in CALL TRANSACTION

Creating a BDC using SESSIONS Method

Processing Session: Foreground/Background

Session 33: Data Upload using LSMW Tool

Session 34: Smartforms

Introduction to SMARTFORMS

Migrating from SAP Script

Designing FORMS

Designing SYTTLES

Session 35: Configuring custom Smartforms / Driver Programs

SMARTFORM with Table Example

Template / Address / Standard Texts

Conditions / Alternative

Modifying Standard Layout

Session 36: Enhancement possibilities in Standard SAP

User Exits

Customer Exits

BAdis – Business Add Ins

Enhancement Framework

Session 37: Introduction to BAPI / RFC

BAPI – Business Application Programming Interface

Remote Function call

RFC Connection

Session 38: Introduction to Workflow / Business Objects (SWO1)

Session 39: Introduction to ALE / IDoc

Session 40: ALE / IDoc – Extnd