

ABAP Workbench Fundamentals Part

PARTICIPANT HANDBOOK INSTRUCTOR-LED TRAINING

ix Course Overview

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2 11		Lesson: Explaining the Key Capabilities of SAP NetWeaver Lesson: Explaining the Architecture of an SAP System, Application Server (AS) ABAP and Application Server (AS) Java
21	Unit 2:	SAP Portfolio Overview
22		Lesson: Identifying the Components of the SAP Applications Portfolio
47	Unit 3:	Navigation Basics
48 57 63		Lesson: Navigating with SAP Graphical User Interface (GUI) for Windows in AS ABAP Systems Exercise 1: Log On to the System and Run a Transaction Exercise 2: Search Technical Information Using F1
73	Unit 4:	SAP User Interfaces
74 81		Lesson: Accessing AS ABAP Systems with SAP GUI Exercise 3: Search for Transactions in AS ABAP
89	Unit 5:	System Core
90 101 105 108 115 123 131 135	2 5 3 3 5 5	Lesson: Explaining AS ABAP and AS Java System Architecture Lesson: Identifying the Processes of an AS ABAP System Exercise 4: Determine the Processes of SAP NetWeaver AS ABAP Lesson: Processing User Requests in AS ABAP Exercise 5: Monitor the Work Processes in AS ABAP Exercise 6: Monitor Lock Entries Exercise 7: Monitor Updates Lesson: Using Additional Processes of an AS ABAP System Exercise 8: Print an Output in AS ABAP
139	3	Exercise 9: Schedule a Simple Report in the Background

153	Unit 6:	Communication and Integration Technologies
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167		Lesson: Describing the Basics of Web Services
171		Lesson: Describing OData in SAP Gateway
191	Lipit 7:	Flow of an ARAP Program
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182		Lesson: Describing the Processing of ABAP Programs
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252		Lessen Defining Flomentany Data Objecto
252		Lesson: Defining Elementary Data Objects
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200		Eesson. Analyzing Frograms with the ADAF Debugger
252 264 273 280 289		Lesson: Defining Elementary Data Objects Lesson: Using Basic ABAP Statements Exercise 14: Use Basic ABAP Statements Lesson: Analyzing Programs with the ABAP Debugger Exercise 15: Debug Statements on Elementary Data Objects

299	Unit 10:	Modularization Techniques in ABAP
301		Lesson: Explaining Modularization
308		Lesson: Defining and Calling Subroutines
323		Exercise 16: Implement Subroutines
329		Lesson: Calling Function Modules
339		Exercise 17: Call a Function Module
346		Lesson: Creating Function Modules
349		Exercise 18: Create a Function Group
353		Exercise 19: Create a Function Module
360		Lesson: Describing Business Application Programming Interfaces
000		(BAPIs)
366		Lesson: Calling Methods of Global Classes
379		Exercise 20: Use a Global Static Method
386		Lesson: Creating Global Classes and Static Methods
391		Exercise 21: Create a Simple Global Class
393		Exercise 22: Create a Simple Static Method
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411	Unit 11:	Complex Data Objects
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425 445 455 457	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models
425 445 455 457 467	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary
425 445 455 457 467 473	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records
425 445 455 457 467 473 481	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access
425 445 455 457 467 473 481 481 487	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records
425 445 455 457 467 473 481 481 487 489	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop
425 445 457 467 473 481 487 489 497	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise)
425 445 457 467 473 481 487 489 497 503	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access
425 445 457 467 473 481 487 489 497 503 514	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks
425 445 457 467 473 481 487 489 497 503 514 521	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check
425 445 457 467 473 481 487 489 497 503 514 521	Unit 12:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check
425 445 457 467 473 481 487 489 497 503 514 521 533	Unit 12: Unit 13:	Lesson: Osing Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check
425 445 457 467 473 481 487 489 497 503 514 521 533	Unit 12: Unit 13:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check Classic ABAP Reports Lesson: Implementing ABAP Lists
425 445 457 467 473 481 487 489 497 503 514 521 533 534 539	Unit 12: Unit 13:	Lesson: Using internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Checks Exercise 20: Implement an Authorization Checks Exercise 20: Implementing ABAP Lists Lesson: Implementing Selection Screens
425 445 457 467 473 481 487 489 497 503 514 521 521 533 534 539 547	Unit 12: Unit 13:	Lesson: Using Internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check Classic ABAP Reports Lesson: Implementing Selection Screens Exercise 30: Create a Selection Screen and a Classic ABAP List
425 445 457 467 473 481 487 489 497 503 514 521 533 534 539 547 554	Unit 12: Unit 13:	Lesson: Using internal Tables Exercise 24: Use Internal Tables Data Modeling and Data Retrieval Lesson: Explaining Data Models Exercise 25: Analyze Transparent Tables in the Data Dictionary Lesson: Retrieving Single Database Records Exercise 26: Implement Single Record Access Lesson: Retrieving Multiple Database Records Exercise 27: Implement a SELECT Loop Exercise 28: Implement an Array Fetch (Optional Exercise) Lesson: Describing Other Aspects of Database Access Lesson: Implementing Authorization Checks Exercise 29: Implement an Authorization Check Classic ABAP Reports Lesson: Implementing ABAP Lists Lesson: Implementing Selection Screens Exercise 30: Create a Selection Screen and a Classic ABAP List Lesson: Implementing Events of ABAP Reports



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591		Exercise 32: Submit Report
598		Lesson: Describing the ABAP Runtime and Memory Management
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639	Unit 16:	ABAP Open SQL
639 640	Unit 16:	ABAP Open SQL Lesson: Processing and Aggregating Datasets on the Database
639 640 645	Unit 16:	ABAP Open SQL Lesson: Processing and Aggregating Datasets on the Database Exercise 34: Request Ordered and Condensed Datasets from the Database
639 640 645 657	Unit 16:	ABAP Open SQL Lesson: Processing and Aggregating Datasets on the Database Exercise 34: Request Ordered and Condensed Datasets from the Database Exercise 35: Perform Calculations on the Database
639 640 645 657 662	Unit 16:	ABAP Open SQL Lesson: Processing and Aggregating Datasets on the Database Exercise 34: Request Ordered and Condensed Datasets from the Database Exercise 35: Perform Calculations on the Database Lesson: Implementing Complex WHERE Conditions and Special INTO Clauses
639 640 645 657 662 670	Unit 16:	ABAP Open SQL Lesson: Processing and Aggregating Datasets on the Database Exercise 34: Request Ordered and Condensed Datasets from the Database Exercise 35: Perform Calculations on the Database Lesson: Implementing Complex WHERE Conditions and Special INTO Clauses Lesson: Selecting Data from Multiple Database Tables



ABAP Workbench Fundamentals Part II

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1	Unit 1:	Introduction to the ABAP Dictionary
2		Lesson: Describing the ABAP Dictionary
11	Unit 2:	Data Types in the ABAP Dictionary
12 19 26 31 37 41 47 52		Lesson: Creating Domains and Data Elements Exercise 1: Create Basic Data Types Lesson: Creating Flat Structures Exercise 2: Create Simple and Nested Structures Lesson: Creating Table Types and Deep Structures Exercise 3: Create Table Types Exercise 4: Create Deep Structures Lesson: Creating Type Groups
61	Unit 3:	Database Tables
62 75 85		Lesson: Creating Transparent Tables Exercise 5: Create Tables in the ABAP Dictionary Lesson: Defining Cluster Tables and Pooled Tables
97	Unit 4:	Performance During Table Access
98 103 107 121		Lesson: Creating Database Table Indexes Exercise 6: Create Table Indexes Lesson: Setting Up Table Buffering Exercise 7: Set Up Table Buffering
133	Unit 5:	Input Checks
134 137 140 149 160 163		Lesson: Creating Fixed Values Exercise 8: Create Fixed Values Lesson: Defining Foreign Keys to Perform Input Checks Exercise 9: Perform Input Checks to Ensure Data Consistency Lesson: Creating Text Tables Exercise 10: Create a Text Table



173	Unit 6:	Dictionary Object Dependencies
174		Lesson: Differentiating Between Active and Inactive Dictionary
170		Objects
179		Exercise 11: Differentiate Between Active and Inactive
183		Dictionary Objects
187		Exercise 12: Identify Dependencies with ABAP Dictionary
		Objects
195	Unit 7:	Table Changes
196		Lesson: Performing a Table Conversion
205		Exercise 13: Perform a Table Conversion
210		Lesson: Enhancing Tables Using Append Structures
217		Exercise 14: Add Enhancements to a Table Using an Append
		Structure
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244		Lesson: Creating Maintenance Views
253		Exercise 16: Create a Maintenance View
258		Lesson: Creating View Clusters
261		Exercise 17: Create a View Cluster
273	Unit 9:	Search Helps
274		Lesson: Creating Search Helps
291		Exercise 18: Create Search Helps
295		Lesson: Applying Advanced Search Help Techniques
299		Exercise 19: Create Collective Search Helps
303		Exercise 20: Create Append Search Helps
313	Unit 10:	Selection Screens
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327		Exercise 21: Implement a Selection Screen
334		Lesson: Implementing Multiple Selection Screens
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347		Lesson: Implementing Input Checks and Creating Variants
353		Exercise 23: Implement Input Checks and Create Variants

361	Unit 11:	Introduction to Screen Programming
363 271		Lesson: Explaining the User Dialog Programming Model
375		Exercise 24. Greate a Dialog Frogramming
375		Lesson: Creating Screens and Screen Elements
389		Evercise 25: Create a Screen
399		Lesson: Modifying Screens at Runtime
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411		Lesson: Calling a Dialog Box Dynamically
413		Exercise 26: Call a Dialog Box
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426		Lesson: Explaining User Interfaces
432		Lesson: Setting a GUI Title and a GUI Status
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453	Unit 13:	Simple Screen Elements
454		Lesson: Creating Screen Elements for Output
462		Lesson: Creating Input/Output Fields
468		Lesson: Defining Checkboxes and Radio Button Groups
473		Exercise 28: Create a Radio Button Group
479		Lesson: Creating Pushbuttons
489	Unit 14:	Screen Error Handling
490		Lesson: Handling Errors Using Dialog Messages and Field Input
		Checks
503		Lesson: Handling Errors Using Navigation and Input Help
509		Exercise 29: Check Input Values
523	Unit 15:	Subscreens
524		Lesson: Creating Subscreens
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550		Lesson: Creating Tabstrip Controls
557		Lesson: Programming Tabstrip Controls
563		Exercise 31: Greate Tabstrip Controis





ABAP Workbench Concepts part I

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14		Lesson: Analyzing and Designing with Unified Modeling Language
		(UML)
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27	11	Fundamental Object Oriented Suptav
57	Unit 2:	Fundamental Object-Oriented Syntax
39		Lesson: Creating Local Classes
53		Exercise 2: Create Local Classes
60		Lesson: Creating Objects
67		Exercise 3: Create Objects
71		Lesson: Accessing Methods and Attributes
79		Exercise 4: Call Methods
85		Lesson: Implementing Constructors in Local Classes
89		Exercise 5: Create and Use Constructors
97		Lesson: Implementing Class Constructors in Local Classes
101		Exercise 6: Create and Use Static Constructors
117	Unit 3:	Inheritance and Casting
117 118	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance
117 118 129	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance
117118129140	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance
117118129140143	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts
 117 118 129 140 143 148 	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance
 117 118 129 140 143 148 153 	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance
 117 118 129 140 143 148 153 160 	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance
117 118 129 140 143 143 153 160 163	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts
117 118 129 140 143 143 160 163	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts
 117 118 129 140 143 148 153 160 163 167 	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting
117 118 129 140 143 153 160 163 177 178	Unit 3:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces
117 118 129 140 143 143 160 163 177 178 185	Unit 4:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces Exercise 11: Define and Implement a Local Interface
117 118 129 140 143 143 143 160 163 177 178 185 195	Unit 4:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Lesson: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces Exercise 11: Define and Implement a Local Interface Lesson: Implementing Polymorphism Using Interfaces
117 118 129 140 143 143 163 163 177 178 185 195 199	Unit 4:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 9: Implement Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces Exercise 11: Define and Implement a Local Interface Lesson: Implementing Polymorphism Using Interfaces Exercise 12: Implement Polymorphism Using Interfaces
117 118 129 140 143 143 143 160 163 177 178 185 195 199 206	Unit 4:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 10: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces Exercise 11: Define and Implement a Local Interface Lesson: Implementing Polymorphism Using Interfaces Exercise 12: Implement Polymorphism Using Interfaces Exercise 12: Implement Polymorphism Using Interfaces Lesson: Integrating Class Models Using Interfaces
117 118 129 140 143 143 160 163 177 178 185 195 199 206 209	Unit 4:	Inheritance and Casting Lesson: Implementing Inheritance Exercise 7: Implement Inheritance Lesson: Implementing Upcasts Using Inheritance Exercise 8: Implement Upcasts Lesson: Implementing Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 9: Implement Polymorphism Using Inheritance Exercise 10: Implementing Downcasts Using Inheritance Exercise 10: Implement Downcasts Interfaces and Casting Lesson: Defining and Implementing Local Interfaces Exercise 11: Define and Implement a Local Interface Lesson: Implementing Polymorphism Using Interfaces Exercise 12: Implement Polymorphism Using Interfaces Exercise 12: Implement Polymorphism Using Interfaces Exercise 13: Integrate Class Models Using Interfaces



229	Unit 5:	Object-Oriented Events
230		Lesson: Implementing Events in Local Classes
239		Exercise 14: Implement Events in Local Classes
252		Lesson: Implementing Events in Local Interfaces
253		Exercise 15: Implement Handling of Interface Events
267	Unit 6:	Object-Oriented Repository Objects
268		Lesson: Creating Global Classes
279		Exercise 16: Implement a Global Class
289		Lesson: Defining and Implementing Global Interfaces
295		Exercise 17: Import and Implement a Global Interface
306		Lesson: Implementing Inheritance in Global Classes
315	Unit 7	ABAP Object-Oriented Examples
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316		Lesson: Using the ABAP List Viewer (ALV)
323		Exercise 18: Implement the ALV Grid Control
331		Exercise 19: Implement a Dialog Box with the ALV Grid Control
340		Lesson: Describing Business Add-Ins (BAdIs)
351	Unit 8:	Class-Based Exceptions
351 352	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions
351 352 359	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions
351 352 359 369	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions
351 352 359 369 384	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques
351 352 369 384 393	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other
351 352 369 384 393	Unit 8:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object Oriented Design Patterns
351 359 369 384 393 411	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns
351 359 369 384 393 411 412	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns Lesson: Implementing Advanced Object-Oriented Techniques
351 359 369 384 393 411 412 423	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns Lesson: Implementing Advanced Object-Oriented Techniques Lesson: Implementing the Singleton Pattern
351 359 369 384 393 411 412 423 427	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns Lesson: Implementing Advanced Object-Oriented Techniques Lesson: Implementing the Singleton Pattern Exercise 22: Implement the Singleton Pattern
351 359 369 384 393 411 412 423 427 436	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns Lesson: Implementing Advanced Object-Oriented Techniques Lesson: Implementing the Singleton Pattern Exercise 22: Implement the Singleton Pattern
351 359 369 384 393 411 412 423 427 436 439	Unit 8: Unit 9:	Class-Based Exceptions Lesson: Explaining Class-Based Exceptions Lesson: Defining and Raising Exceptions Exercise 20: Implement Class-Based Exceptions Lesson: Implementing Advanced Exception Handling Techniques Exercise 21: Map Exceptions to Each Other Object-Oriented Design Patterns Lesson: Implementing Advanced Object-Oriented Techniques Lesson: Implementing the Singleton Pattern Exercise 22: Implement the Singleton Pattern Exercise 22: Implement the Singleton Pattern Lesson: Implementing Factory Classes Using Friendship Exercise 23: Implement a Factory Class Using Friendship
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ABAP Workbench Concepts part II

PARTICIPANT HANDBOOK INSTRUCTOR-LED TRAINING

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