



DB3011 DB2 for z/OS Database Recovery and Advanced Utilities

Course ID#: 0371-409-ZZ-W

Hours: 21

Course Content

Course Description:

The course provides detail guidance information for all personnel who will be participating in the Recovery of DB2 for z/OS Databases and Applications. Recovery detail includes Unit of Work Recovery, Current point in time and prior point in time recovery, Recovery analysis, Recovery from I/O errors, out of space conditions, building and implementing DB2 Recovery related utilities. Both data sharing and non-data sharing recovery considerations are covered.

Upon successful completion of this course, the student will be able to:

- Describe the DB2 Recovery Environment
- Develop and implement Backup and Recovery procedures
- Analyze failures and identify what type of recovery procedure is appropriate
- Perform media recovery of their database objects
- Perform prior-point-in-time recovery
- Display a working knowledge of the DB2 stand-alone utilities

Target Student:

DB2 Database and System Administrators who will be managing and recovering DB2 Databases.

Prerequisites:

DB3010 DB2 for z/OS Database Administration or equivalent experience. A basic understanding of DB2 for z/OS utilities is assumed.



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Topics:

Module 1: DB2 Recovery Environment Overview

- DB2 Recovery Related System Objects
 - Bootstrap Dataset (BSDS)
 - DB2 Logs
 - Units of Recovery
 - Log Records
 - DB2 Catalog Objects
 - DB2 Directory
- Types of Recovery
- Backup & Recovery Procedures

Module 2: DB2 Recovery Related Commands

- Database Commands
 - Starting Databases
 - Monitoring Databases
 - Restricted Statuses
 - Database Use
 - Database Locks
 - CLAIMERS
 - Pages in Error
 - Stopping Databases
- Thread & Related Commands
 - Display Threads
 - Terminate Threads
 - Reset Indoubt
 - Recover Indoubt
 - Display DDF
- Logging Environment Commands
 - Display Log
 - Set Log to modify logging environment
- Monitoring using DB2 Commands

Module 3: Preparing for Recovery

- COPY Utility
 - Data Checking
 - Copy Pending Status
 - Turn Off Copy Pending
 - Conditional Image Copies
 - DFSMSdss Concurrent Copy
 - Using FlashCopy
 - Copy Phases
 - Restart Considerations
 - Copy Parallelism
- QUIESCE Utility
- LISTDEF & TEMPLATE
 - Copy & Quiesce with Listdef
 - Template Symbolics
- Merging Image Copies
- COPYTOCOPY Utility
- Index Copies
- OPTIONS
- PREVIEW
- MODIFY RECOVERY Utility
- Recommendations

Module 4: Database Recovery

- Backup and Recovery Procedures
- Recovery Scenario
 - What Happens During Recovery
- Complete Recovery Cycles
- Recovery Information
- REPORT Utility
 - Problem Analysis
- Recovery Pending Status



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Module 4: Database Recovery continued

- RECOVER Utility
 - Recovery Phases
 - RECOVER to Current Point in Time
 - Recover a Partition
 - Recover to a prior Point in Time
 - Recover a Set to a Point in Time
 - Recover to Image Copy
 - Recovering Indexes
- Rebuilding Indexes
- Complete Referential Set Recovery
- Types of Recovery
 - Log-Only Backout
 - ERROR RANGE Recovery
 - LPL Errors
 - Invalid LOBs
 - Down-Level Pageset
 - LOGONLY Recovery
- REPAIR Utility
- MODIFY Utility
 - MODIFY Syntax
- Recommendations

Module 5: Stand-alone Utilities

- Print Log Map Utility
 - DSNJU004 Utility
 - Report output analysis
- Recovery Log Contents
 - DSN1LOGP Utility
 - Control Statements
 - Report output analysis
 - When to use DSN1LOGP
- DSN1COPY
 - Usage
 - Requirements
 - Copying using DSN1COPY
 - Restore using DSN1COPY
 - Validation
- Stand-alone Utility Recommendations

Module 6: Unloading Data

- UNLOAD utility
 - Usage
 - Concurrency
 - Control Statements
 - Output
- DSNTIAUL Sample Application
 - Usage
 - Concurrency
 - Parameters
 - Output
- Recommendations

Module 7: Recovery Scenarios Unique to a Data Sharing Environment

- Data Sharing Overview
- Logging Environment
- Recovery from CF failures
 - Group Buffer Pools
 - Lock Structure
 - SCA Structure
- Recommendations