DB2 12 FOR ZOS: BASICS FOR DBA BEGINNERS

Course Code: 821633

Db2 12 for z/OS beginning DBAs can develop fundamental skills or recognition through lectures and hands-on exercises.

Db2 12 for z/OS beginning DBAs can develop fundamental skills or recognition through lectures and hands-on exercises of:

- TSO/E and ISPF
- Data sets
- Db2 Objects
- Structured Query Language
- Db2 Commands
- JCL and SDSF
- Db2 Utilities
- Db2 Logging
- Db2 Program Preparation

The course materials cover Db2 12 for z/OS

What You'll Learn

Students will learn to,

- Describe several services provided in a z/OS environment
- Explain workloads in the batch environment
- Explain workloads in the online environment
- Describe job roles in a z/OS environment
- Log On to TSO/E
- Navigate TSO/E and ISPF
- Use TSO commands
- Setup and utilize JCL (Job Control Language)
- Utilize SDSF
- Describe the different types of data sets in a z/OS environment
- Allocate data sets and list data set information and content
- Create and modify data set content
- Give an overview of the Db2 9 environment
- Describe and utilize Db2 Objects
- Describe and utilize several DB2 Utilities

- Describe the Db2I (Db2 Interactive Facility) environment
- Use SPUFI (SQL Processing Using File Input) to compose and execute SQL
- Setup and execute Db2 Commands
- Understand Db2 Logging
- Describe Db2 program preparation process
- Understand Db2 startup and shutdown
- Understand and utilize Db2 recovery strategies

Who Needs to Attend

This beginning Db2 basic course is for z/OS database administrators who need to acquire the basic skills required to administer a Db2 database in a z/OS environment.

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CLASSROOM LIVE	$4,750 USD	5 Day

Classroom Live Outline

Unit 1 Introduction

- The modern Mainframe Environment
- Defining z/OS
- What are the benefits of z/OS-
- Typical z/OS workloads
- Batch processing
- Online Transaction Processing
- Job roles in the Mainframe environment
- z/OS Components and Services
- UNIX System Services
- The Parallel Sysplex Environment
- z/OS Management Interfaces

Unit 2 TSO/E and ISPF

- Emulators
- z/VM systems
- 2.1. TSO/E
    - ⬚ TSO Logon panel
    - ⬚ Changing passwords
    - ⬚ Additional logon panel options
    - ⬚ The Reconnect option
    - ⬚ TSO READY prompt
    - ⬚ TSO HELP command
    - ⬚ LISTALC command
    - ⬚ PROFILE command
    - ⬚ Changing PROFILE
    - ⬚ LOGOFF command

- ⊠ Scripting support
- 2.2. ISPF
  - ⊠ What is ISPF
  - ⊠ ISPF command
  - ⊠ ISPF Primary Option Menu
  - ⊠ Primary Option Menu Areas
  - ⊠ Action Bar
  - ⊠ Options option
  - ⊠ ISPF Settings
  - ⊠ Global Color Change Utility
  - ⊠ Function Keys
  - ⊠ Option or Command Prompt
  - ⊠ Keylist Utility
  - ⊠ F3 Exit
  - ⊠ F1 Help
  - ⊠ F2 Split
  - ⊠ ISPF Navigation Techniques
  - ⊠ PFSHOW
  - ⊠ More ISPF commands
  - ⊠ Option listing
  - ⊠ ISPF Command Shell
  - ⊠ TSO Command Prefix

Unit 3 Data Sets

- Data sets
- Types of data sets
- DASD versus Tape
- Volumes
- Storage allocation
- Data set naming conventions
- Catalogs
- Storage Management
- Checkpoint
- 3.2. Sequential Data Sets
  - ⊠ Creating data sets
  - ⊠ Utility Selection Panel
  - ⊠ Data Set Utility Panel
  - ⊠ Creating a data set
  - ⊠ Allocate New Data Set
  - ⊠ Creating a sequential data set
  - ⊠ Editing a sequential data set
  - ⊠ ISPF Editor
  - ⊠ ISPF Editor primary commands
  - ⊠ ISPF Editor line commands
  - ⊠ Data Set List Utility
  - ⊠ Data set name wild cards

- Data Set List Utility
- DSLIST results
- Select Action
- HELP on Line Commands
- DSLIST by volume
- 3.3. Partitioned Data Sets
  - Partitioned data sets
  - Creating a PDS
  - PDS members
  - Creating a PDS member - Library Utility Panel
  - DSLIST Utility
  - PDS Member List
  - Member Actions
- 3.4. VSAM Data Sets
  - VSAM data sets
  - VSAM data set components
  - Creating a VSAM data set

Unit 4 JCL and SDSF

- 4.1. JCL
  - Batch Jobs versus Online Transactions
  - Batch job activities
  - Creating the batch job
  - JCL: Job Control Language
  - Statement format
  - JOB statement
  - EXEC statement
  - DD statement
  - Instream Input Data Set
  - Instream Output Data Set
  - DD DUMMY
  - Sample Jobstream 1
  - Sample Jobstream 2
  - Submitting the job
  - Notification
- 4.2. SDSF
  - SDSF
  - SDSF Primary Option Menu
  - Output and Held queues
  - PREFIX command
  - Working with queue query
  - Select command
  - Canceling or Purging output
  - Sample jobstream 1 revisited
  - Sample jobstream 2 revisited

Unit 5 Db2 Relational Database Concepts

- Relational Database Systems
- Db2 for z/OS and Db2 family
- The Db2 Optimizer
- Benefits of Db2 for z/OS
- Database
- Tables
- Indexes
- Primary Key
- Relationships
- Referential Integrity
- Integrity Rules
- Data domains
- Table scan access
- Index access
- Interacting with Db2
- Transactions

UNIT 6 Structured Query Language (SQL) and SPUFI

- Structured Query Language (SQL)
- SQL categories
- SELECT statement
- SELECT list
- FROM clause
- Simple SELECT statement
- SUBSTR function
- SELECT with SUBSTR function
- WHERE clause
- SELECT with WHERE clause
- IN operator
- WHERE with IN operator
- BETWEEN operator
- WHERE with BETWEEN operator
- LIKE operator
- WHERE with LIKE operator
- ORDER BY clause
- The NULL value
- SELECT with ORDER BY
- Putting it all together
- Joining tables
- Correlation Names
- Additional criteria
- Cartesian products
- Executing SQL
- SQLCODE

Unit 7 Db2 Objects

- 7.1. Databases and Table Spaces
  - ☐ Db2 objects
  - ☐ The Db2 catalog
  - ☐ Storage group
  - ☐ Database
  - ☐ Table Space
  - ☐ Segmented table space
  - ☐ Partitioned table space
  - ☐ Partition By Growth table space
  - ☐ Partition By Range table space
  - ☐ VSAM data sets
- 7.2. Tables, Indexes and Views
  - ☐ Table
  - ☐ Partitioned table
  - ☐ Index
  - ☐ Clustering index
  - ☐ Index space
  - ☐ Partitioned index
  - ☐ View
- 7.3. Qualified names, Implicit Object Creation, and SQL statements
  - ☐ Qualyfing Db2 objects
  - ☐ Implicit object creation
  - ☐ DML statements
  - ☐ Insert statement
  - ☐ UPDATE statement
  - ☐ DELETE statement
  - ☐ COMMIT statement
  - ☐ ROLLBACK statement

Unit 8 The Db2 System

- The Db2 system
- System parameters
- Required address spaces
- Optional address spaces
- Started tasks
- Master address space
- System databases
- Directory
- Catalog
- System database data sets
- Data pages
- Buffer pools
- Buffer pools: Read operations
- Buffer pools: Write operations
- System buffer pools
- Db2 logging

- Bootstrap data set
- Db2 locking
- Integrity issues
- Transaction locks
- Isolation Levels
- User interfaces

Unit 9 Db2 Commands and Program Preparation

- Accessing Db2
- 9.1. Db2 Commands
  - ⊠ Db2 commands
  - ⊠ Command format
  - ⊠ DISPLAY DATABASE
  - ⊠ DISPLAY DATABASE SPACENAM
  - ⊠ Other DISPLAY DATABASE options
  - ⊠ DISPLAY BUFFERPOOL
  - ⊠ DISPLAY DDF
  - ⊠ DISPLAY LOG
  - ⊠ DISPLAY THREAD
  - ⊠ ARCHIVE LOG
  - ⊠ STOP DATABASE
  - ⊠ START DATABASE
  - ⊠ STOP DATABASE SPACENAM
  - ⊠ START DABATASE SPACENAM
  - ⊠ Executing commands
  - ⊠ Executing commands: TSO
  - ⊠ Executing commands: Batch
  - ⊠ Executing commands: SDSF
- 9.2. Program Preparation
  - ⊠ Db2 program preparation
  - ⊠ Source program
  - ⊠ Precompiler
  - ⊠ Compile and link edit
  - ⊠ Database Request Module
  - ⊠ Bind plan
  - ⊠ Bind plan
  - ⊠ EXPLAIN
  - ⊠ Program execution

Unit 10 Db2 Utilities

- Utility categories
- Utility and Tools Packaging
- Standalone utilities
- Service aids and samples
- Online utilities
- UNLOAD utility

- UNLOAD control statement
- LOAD utility
- LOAD utility steps
- Restrictive states
- Db2| Utility Generator
- Utility Panel One
- Utility Panel Two
- Utility batch job
- DSNUPROC
- SYSUTIL table
- DISPLAY UTILITY command

Unit 11 Db2 Shutdown, Startup, and Recovery

- Buffer Pools and Logging
- Normal Db2 Shutdown
- Restart phases
- Starting Db2 after a normal shutdown
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- Log initialization
- Current status rebuild
- Forward log recovery
- Backward log recovery
- Object backup and recovery
- COPY utility
- Table space recovery
- RECOVER utility

Unit 12 Course Summary

- z/OS topics
- Db2 for z/OS topics
- Other Db2 courses
- Db2 for z/OS certifications
- Course Evaluation

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Mar 9 - 13, 2026 | 9:30 AM - 5:30 PM EST

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PRIVATE GROUP TRAINING	5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.