Arrow ECS Finland Oy - Education Services

TRAINING OFFERING

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DB2 10 for zOS System Administration

CODE:	LENGTH:	PRICE:
CV851G	40 Hours (5 days)	€3,900.00

Description

The course is updated for DB2 10 for z/OS. This course is the classroom delivered version of the Instructor led Online course DB2 10 for z/OS System Administration - ILO (3V851).
Administrators of DB2 10 for z/OS can acquire a view of the architecture and fundamental processes required to manage a DB2 10 for z/OS subsystem. Engage in lectures and hands-on labs to gain experience to:

- Relate the z/OS IPL process to a DB2 subsystem
- Explain effects of stopping and starting DB2
- Explain how DB2 sets and use Integrated Catalog Facility (ICF) catalog names
- The use of DSN command processor running in batch and foreground
- Use views to minimize your ability to see into the DB2 catalog
- See how the catalog (through grant activity) controls access to data
- Search the catalog for problem situations
- Use the catalog and DB2 utilities to determine data recovery requirements
- Describe Internal Resource Lock Manager (IRLM) in a DB2 environment
- Implement DB2 and Resource Access Control Facility (RACF) security
- Describe DB2 program flow for all environments
- Display normal and problem threads and database status
- See how the SQL Processor Using File Input (SPUFI) AUTOCOMMIT option defers the COMMIT/ROLLBACK decision
- Interpret lock displays
- Identify and cancel particular threads
- Describe available DB2 utilities to manage system and user page sets

Objectives

- Start and stop the DB2 subsystem
- Explain the allocation CLIST used at logon for DB2 data sets
- Use Set SYSPARM command
- Locate the Command recognition character for the DB2 subsystem
- Query the system log to gain knowledge about the IPL process and information in the system log when DB2 is initialized or stopped
- Explore DB2 Address Spaces information
- Select the DB2 functions that best satisfy your site requirements
- Explain the use of RACF for DB2 connection security
- Explain the use of Roles and Trusted Context
- Implement security procedures for a DB2 environment
- Describe the components and address space structure of a DB2 subsystem
- Explain DB2 Program Flow for all environments
- Explain parameter settings for the IRLM
- Display storage values for the IRLMPROC
- Dynamically change IRLM storage
- Estimate lock storage required for the IRLM
- Invoke and use DB2 TSO Facilities
- Use the DB2 Catalog to monitor authorizations
- Increase the size of the Active Log data sets
- Explain DB2 Logging
- Use SET LOG SUSPEND and SET LOG RESUME
- Use DSNJU004 to Print Log Map
- Interpret the output of Print Log Map

- Use DSNJU003 to rename DB2 data sets
- Plan for recovery of a BSDS failure
- Monitor and control DB2
- Explain transaction flow in IMS and CICS
- Describe the CICS and DB2 environment
- Explain the difference between JDBC and SQLJ

Audience

This intermediate course is for system administrators, database administrators, and other technical individuals, who manage and implement DB2 10 for z/OS.

Prerequisites

You should have an understanding of the objects (tables, indexes, databases, **and** so forth) used in DB2 systems, **and** of how those objects are created, managed, **and** recovered.
These skills can be developed by taking the DB2 Database Administration Workshop (CF83) / DB2 9 for z/OS Database Administration Workshop Part 1 (CV830) **or** through equivalent experience. You should also have a working knowledge of SQL. The DB2 SQL Workshop (CF12) / SQL Workshop - Instructor Led Online (3E120) provides that.
In addition, you should have:

- At least one year as a z/OS systems programmer **or** equivalent experience
- **Or,** one year working with DB2 on the mainframe as a DBA on the mainframe **or** equivalent experience

Programme

Basic architecture and fundamental mechanisms

- Explain the principles of:
  - IPLing z/OS
  - TSO/E LOGON
  - Allocation CLIST
  - Control of DB2
  - START DB2 process
  - DSNZPARM member
  - DB2 address space structure
  - DB2 log
  - Catalog and directory
  - Data sharing feature
  - Connection process
  - Command routing process
  - Program preparation and execution processes
  - Transaction and points of consistency
- Set up and tune the IRLM
- Recognize the important IRLM parameters

System security

- Protect DB2 data sets when DB2 is up or down
- Protect connections to DB2
- Describe the high-level operation of DB2 security exits

DB2 program flow for all environments

- Describe DB2 program execution
- Explain what a DB2 thread is
- Explain commit processing
- Describe connection types
  - DSN
  - CAF
  - IMS
  - CICS
  - RRSAF

TSO and batch environments

- Describe TSO facilities
- Describe the facilities of DB2I
- Invoke the DSN command processor in various ways
- Invoke DB2 utilities
- Describe the QMF environment

DB2 authorization

- Provide appropriate authorization for your user community
- Monitor authorization in the DB2 catalog
- Effectively assign administrative authorities like SYSADM, DBADM, and BINDAGENT
- Create objects for others

Logging

- Explain the basic algorithms of the DB2 logging facility
- Set up and operate your log efficiently
- Recover from BSDS failures
- Recover from certain lost log data set situations
- Explain the use of the log maintenance tools

DB2 9 for z/OS utilities

- Categorize and discuss DB2 utilities
- Explain how to back up and recover DB2 objects using BACKUP SYSTEM and RESTORE SYSTEM utilities
- Define high-level qualifier for catalog and directory
- Rename DB2 data sets
- Print log map of BSDS

Object recovery

- Describe the different types of application recovery
- Perform various health checks to detect damaged data
- Read the log using DSN1LOGP
- Avoid certain lost log scenarios

Transaction flow in IMS and CICS

- Describe the two-phase commit process
- Explain thread recycling and the complete connection process for a DB2 thread
- Describe the input to and output from a SIGNON exit

CICS - DB2 environment

- Outline a CICS connection to DB2
- Use the DSNC transaction
- Encourage CICS thread recycling

Operations (monitoring and controlling DB2)

- Monitor and control DB2
- Train operators at your local site
- Discuss the functions of ATS (Administrative Task Scheduler)

System recovery/restart

- Describe the DB2 restart process following both normal and abnormal terminations
- Prevent restart failures
- Recover from restart failures
- Begin planning for offsite recovery

IMS - DB2 environment

- Integrate IMS transactions into the DB2 environment
- Integrate IMS BATCH jobs into the DB2 environment
- Control which plans, subsystems, and connection IDs transactions and batch jobs use

Distributed - DB2 environment

- Describe the use of DB2 for z/OS enterprise servers in a multitier environment
- Explain the difference between JDBC and SQLJ

- Describe the Java database connectivity capabilities: use SQLJ and/or JDBC
- Document the requirements to set up the DB2 and Java environment in a z/OS environment

Options

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- Explain DB2 Logging
- Use SET LOG SUSPEND and SET LOG RESUME
- Use DSNJU004 to Print Log Map
- Interpret the output of Print Log Map
- Use DSNJU003 to rename DB2 data sets
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Session Dates

Aikataulutamme kiinnostuksen mukaan. Ota yhteyttä

Additional Information

This training is also available as onsite training. Please contact us to find out more.