CV851G

DB2 10 for zOS System Administration

Durata: 5 gg

Descrizione

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

A chi è rivolto?

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

Prerequisiti

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

Contenuti

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