

CA IDMS/DB Database Version 19.x: Database Navigation 200 Bundle

Course Summary

Description

CA IDMS is CA Technologies-proven, Web-enabled, high-performance mainframe relational database management system. CA IDMS provides unparalleled business value for over a thousand organizations around the world and offers superior, cost-effective database performance with maximum flexibility. The add-on CA IDMS SQL Virtual Foreign Key Feature course focuses on the new Virtual Foreign Key features, how to implement them and how to utilize the new functionality they offer. This course is designed to introduce the new Database Administrator (DBA) to database navigation so they can safely and efficiently work within the IDMS/DB environment. You will also be able to integrate and utilize the Virtual Foreign Key features into your IDMS/DB environment.

Objectives

After taking this course, students will be able to:

- Describe the characteristics of an CA IDMS/DB database and the effects of programming in that environment
- Recognize record components on a data structure diagram
- Identify information on a data structure diagram and indicate its importance to a programmer
- Define currency and give examples of how currency is used in database processing
- Describe the requirements for accessing a database
- Write code to retrieve and store data
- Explain the Virtual Foreign Key features
- Implement Virtual Keys
- Utilize Virtual Foreign Keys to access data

Topics

- Introduction to CA IDMS/DB
- Data Relationships
- Data Storage
- Set Structures
- Data Structure Diagram
- Currency
- Preparing for Database Access
- Verifying Database Access Results
- Retrieving Data
- Updating Data
- Protecting Data Integrity
- Add-on course

Audience

This course is designed for System Administrators, Database Administrators and Application Developers.

Prerequisites

Before taking this course, students should take CA IDMS v18: Concepts and Facilities, and have a working knowledge of COBOL.

Duration

Three Days

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Course Outline

I. *Introduction to CA IDMS/DB*

- A. Describe the characteristics of the database environment and the effects of programming in that environment

II. *Data Relationships*

- A. Explain how data can be described as entities
- B. Define the relationships between those entities
- C. Identify records, sets, and foreignkey relationships on a data structure diagram

III. *Data Storage*

- A. Identify where IDMS stores data
- B. Recognize record components on a data structure diagram

IV. *Set Structures*

- A. Explain how CA IDMS uses embedded pointers to implement the various set structures
- B. Recognize set characteristics on a data structure diagram

V. *Data Structure Diagram*

- A. Recognize all information on a data structure diagram and indicate what information is important to a programmer who needs to access the database

VI. *Currency*

- A. Define currency and give examples of how currency is used in database processing

VII. *Preparing for Database Access*

- A. Describe the requirements for accessing a database

VIII. *Verifying Database Access Results*

- A. Verify database access

IX. *Retrieving Data*

- A. Write the code to retrieve data from the database

X. *Updating Data*

- A. Write the code to update data from the database

XI. *Protecting Data Integrity*

- A. Explain how the database is protected from concurrent update or abnormal program termination

XII. *Add-On Course: CA IDMS Version 19.x: SQL Virtual Foreign Key Feature*

- A. Explain the Virtual Foreign Key features.
- B. Implement Virtual Keys.
- C. Expose Virtual Foreign Keys.
- D. Utilize Virtual Keys to access data.
- E. Utilize Virtual Foreign Keys to access data.