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Course Code: CM17G

Course Title: IMS Database Application Programming

## Description:

Learn how to write application programs that use Data Language One (DL/I) to process Information Management System (IMS) databases.

## Objectives:

- Describe the basic differences between files and IMS databases as they relate to application program coding and logic
- Describe the terms and processing characteristics of IMS hierarchic data structures
- Construct DL/I calls for either COBOL or PL/I language programs
- Write, test and debug a batch application program that uses the DL/I call functions
- Use the IMS Test Program to prototype application program calls, and to perform ad-hoc read and update access to an IMS database
- Describe the applications and uses of other DL/I features
- Program for recovery and restart using DL/I calls to establish synchronization points
- Describe the functions provided by High Availability Large Database (HALDB), and any program differences when accessing a Full Function database or a HALDB

## Prerequisites:

You should complete:

- *IMS Fundamentals (CM010) or IMS Fundamentals - Web - ILO(CMW01)*

**and** a COBOL **or** PL/I language course, **or** be able to:

- List the basic components of the IMS database system
- Construct a non-DL/I application program in COBOL **or** PL/I

## Duration:

24 Hrs

## Topics:

- DL/I Environment
- DL/I Call Processing
- DL/I Retrieval Calls
- DL/I Update Calls
- DL/I Programming Techniques: Part 1
- DL/I Advanced Segment Search Arguments SSAs: Part 1
- DL/I Test Program
- DL/I Programming Techniques: Part 2
- DL/I Advanced Segment Search Arguments SSAs: Part 2

- System Service Calls
- Programming Standards
- High Availability Large Database (HALDB) Access

**Audience:**

This is an intermediate course for individuals who write programs in Common Business Oriented Language (COBOL), or Programming Language One (PL/I), or Assembler language using DL/I to navigate through an process IMS databases.