

COBOL Fundamentals

CDT110

This course teaches the structure of the language and the writing of simple to moderately complex programs. Hands-on workshops are used extensively to teach, correct and refine programming rules and techniques. This workshop is highly customized to the clients environment and includes programming standards and approved methods of structuring programs. Flowcharts, pseudo-code, and structure charts are used as design tools unless the client specifies other methods.

Audience

- Programmer Trainees

Prerequisites

- Knowledge of business data processing and programming concepts.
- TSO/ISPF
- Exposure to JCL

Course Length

- Five Days

Learning Objectives

- COBOL Syntax
- Design and Coding of COBOL Programs
- Simple to moderate reports
- Testing and Debugging

Teaching Methods

- Lectures and explanations
 - Examples of good logic & programming
 - Extensive hands-on workshops
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Course Outline

NA0

COBOL Overview

- COBOL Structure
- Division Purpose
- Highlights

Data Division

- FILE Section
- WORKING-STORAGE Section

Report Design

- Field Descriptions
- Detail Lines and Output Editing
- Heading Lines
- Totals and Subtotals

Procedure Division

- Structuring Techniques
- Programming Notes and Pseudo-code
- Sequencing Routines
- I/O Statements
- MOVE Statements
- Arithmetic Statements

LOGIC Constructs

- Simple IF....THEN....ELSE
- DO....WHILE
- DO....UNTIL
- Compound IF Statements
- Nested IF Statements
- PERFORM's
- EVALUATE

Condition Names

- Advantages
- Usage
- Editing input fields

Tables

- Subscripting vs. Indexing
- Internal Tables
- External Tables
- SEARCH

Redefines

- Data Areas
- Table Areas

Subtotals

- Control Breaks
- Subtotal Accumulation
- Subtotal Processing

Copy Statements

- Purpose
- Setting up Copy Libraries
- Using COPY

Call Statements

- Calling Program
- Called Program
- Linkage Section

DATA Representation

- Zoned Decimal Fields
- Packed Fields (COMP-3)
- Binary Fields (COMP)
- Signs

Testing and Debugging

- Avoiding Problems
- Desk Checking
- Abnormal Termination and System Messages
- COBOL Debugging Statements
- DISPLAY
- Structured Testing Strategies
- Other Debugging Aids

Data Validation

- Edit Programs
- Edit Checks
- Edit Report Formats
- Control Totals
- Creating Files

Workshops

- Reporting
- Advanced Reporting
- Table Processing
- Totals and Subtotals
- Output Files
- Data Validation