

# COBOL Application Programming

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**Length:**

4 Days

**Description:**

With this course students will learn I/O processing, conditional testing, arithmetic operations, table handling, subprogram concepts and linkage conventions. The course will cover structured programming techniques using the new COBOL 85 constructs for Do groups (inline performs), Dowhile, Dountil, Selection (if then else) and Case (evaluate).

**Course Objectives:**

Upon completion of the course students will:

- Understand each of the COBOL Divisions: Identification, Environment, Data, and Procedure
- Have learned good programming techniques in COBOL
- Understand data definitions
- Learn the basic I/O functions and verbs
- Understand the Arithmetic instructions and different numeric data types
- Know table handling techniques
- Have an understanding of the subprogram concept

**Audience:**

This workshop is designed for application programmers and systems analysts who are or will be using COBOL II, COBOL for MVS, COBOL for OS/390.

**Prerequisites:**

Some programming experience is helpful.

**Chapter 1 – INTRODUCING COBOL**

- Coding Rules
- Program Structure
- Identification Division
- Environment Division
- Data Division
- Working-Storage Section
- Procedure Division
- COBOL Syntax
- Compile, Link, and Go

**Chapter 2 – ARITHMETIC**

- Arithmetic Verbs
- ADD Statement
- SUBTRACT Statement
- MULTIPLY Statement
- DIVIDE Statement
- COMPUTE Statement

**Chapter 3 – DATA MANIPULATION**

- MOVE Statement
- Reference Modification
- INITIALIZE Statement
- SET TO TRUE Statement

#### **Chapter 4 – CONTROL FLOW**

- Control Verbs
- CONTINUE Statement
- NEXT SENTENCE Statement
- GO TO Statement
- EXIT Statement
- GOBACK Statement
- Structured Programming
- PERFORM Statement
- PERFORM TIMES Statement
- PERFORM UNTIL Statement
- IF Statement
- EVALUATE Statement
- Program Development
- COPY Statement

#### **Chapter 5 – QSAM INPUT OUTPUT**

- Record Formats and Blocking
- Files
- I/O Devices
- Input Verbs List
- Output Verbs List
- Other I-O Verbs List
- Sample QSAM Input Program
- FILE-CONTROL Paragraph
- FILE SECTION
- OPEN Statement
- CLOSE Statement
- READ Statement
- ACCEPT Statement
- Sample QSAM Output Program
- WRITE Statement
- Printer WRITE Statement
- REWRITE Statement
- DISPLAY Statement

#### **Chapter 6 – DATA EDITING**

- Data Editing
- Alphanumeric Editing
- Numeric Editing
- Zero Suppression Editing
- Insertion Editing
- Simple Insertion
- Special Insertion Editing
- Fixed Insertion Editing
- Floating Insertion

#### **Chapter 7 – TABLE PROCESSING**

- The OCCURS Clause
- Subscripts
- Subscript Rules
- PERFORM VARYING

- Initializing Tables
- Indexing
- The SET Statement
- Self Assessment
- Searching a Table
- The SEARCH Statement

## **Chapter 8 – VSAM INPUT OUTPUT**

- Input Verbs List
- Output Verbs List
- Other I-O Verbs List
- FILE-CONTROL Paragraph
- FILE-CONTROL Paragraph
- FILE SECTION
- OPEN Statement
- CLOSE Statement
- READ Statement
- Sample VSAM Output Program
- WRITE Statement
- REWRITE Statement
- DELETE Statement