

## Introduction to COBOL Programming Detailed Course contents

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### Introduction to COBOL

Development of COBOL. Program translation: compilation, linkage editor. Common compilation errors, compiler options. Divisions of COBOL, COBOL syntax and format, COBOL character set, program source structure.

### COBOL statement structure

COBOL words, format of statements.

### Identification Division

Entries.

### Environment Division

Entries.

### Data Division

Entries.

### File Section

File description (FD), record descriptions, hierarchy and level numbers, description-string entry.

### Working-Storage Section

Literals, figurative constants, redefines clause, data representation, the Usage clause, synchronization, sign clause.

### The Procedure Division

File status codes; file statements: Open, Read, Write, Close, Stop, Goback; Accept and Display; Move statement, Justified clause, qualification of data names, Reference Modification.

### Perform statement

Out-of-line, With test ... Until, ... Times, in-line statement; Go to statement.

### Program design

Describes program design techniques, design considerations, procedure names, program structure.

### Printing

Printed output, Write statement with the advancing option, editing characters; Initialize statement.

### Environment Division clauses

Other entries.

### Condition testing

Conditional statements: IF statement, class condition, sign condition, relation condition, condition-name conditionals (88 levels), Set statement for condition-names, nested If statements, compound conditions, logical operator - OR with AND. Evaluate statement, Continue statement.

### Arithmetic

Arithmetic statements: Rounded option, On Size Error option, Add statement, Subtract statement, Multiply statement, Divide statement, Compute statement.

### Non-sequential files

File access modes, Select for Indexed files. Select for Relative files.

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### **Accessing Indexed and Relative files**

Open statement, Close statement, creating a file - Sequential access, Write statement, Reading a file - Sequential access, Read statement, Invalid key clause, Reading a file - Random and Dynamic access, Writing to a file - Random access, Updating a file - Random access, Rewrite statement, Delete statement, Start statement, Reading a file - Dynamic access.

### **Declarative routines**

Clauses.

### **Using Subroutines**

Call statement, Using clause - calling program, Using clause - called program, Linkage Section, returning control from a called program.

### **Table handling**

Subscripted tables: Single dimensional tables, Perform and single dimensional tables, variable length tables.

Indexed tables: Set statement, storing an index, using an index, Perform example using a two-dimensional table; Search statement.

### **Internal Sort**

Sort statement, Input keyword, Output keyword, Release statement, Return statement.