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COBOL 85 Programming

Roger Hatty

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MACMILLAN

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Contents

<i>Preface</i>	<i>xi</i>
<i>Acknowledgements</i>	<i>xiii</i>
<i>List of figures</i>	<i>xv</i>

Part I NUCLEUS and SOURCE TEXT MANIPULATION Modules

1	COBOL Programming Fundamentals	3
	1.1 COBOL Computer Systems	3
	1.2 COBOL 85 Programs	4
	1.3 Program Development	8
	1.4 The IDENTIFICATION DIVISION	12
	1.5 The ENVIRONMENT DIVISION	13
	1.6 Practical	14
2	DATA and PROCEDURE DIVISION Fundamentals	16
	2.1 The DATA DIVISION	16
	2.2 Data Item Descriptions	17
	2.3 The PROCEDURE DIVISION	19
	2.4 Literals and Figurative Constants	22
	2.5 The DISPLAY Statement	23
	2.6 COBOL Syntax Format	24
	2.7 ADD Statement Variations	24
	2.8 The GIVING Option	27
	2.9 The MOVE Statement	29
	2.10 Practical	31
3	Numbers and the SUBTRACT Statement	33
	3.1 Fractional Numbers	33
	3.2 The V and P PICTUREs	33
	3.3 The . PICTURE	34
	3.4 Signed Numbers	37
	3.5 The S PICTURE	37
	3.6 The + and – PICTUREs	38
	3.7 The SUBTRACT Statement	39

3.8 The ROUNDED Option	42
3.9 The SIZE ERROR Option	43
3.10 Practical	44
4 The MULTIPLY, DIVIDE and COMPUTE Statements	46
4.1 The MULTIPLY Statement	46
4.2 The DIVIDE Statement	47
4.3 The Arithmetic Statements Together	49
4.4 The COMPUTE Statement	50
4.5 Zero Suppression	54
4.6 Insertion Pictures	54
4.7 Floating Pictures	55
4.8 The USAGE Clause	55
4.9 The Currency Symbol and the Decimal Point	56
4.10 Time and Date	57
4.11 Practical	59
5 The IF, GO TO and EVALUATE Statements	60
5.1 The IF Statement	60
5.2 Conditions	63
5.3 Nested IF Statements	64
5.4 The NEXT SENTENCE Option	66
5.5 Complex Conditions	68
5.6 The GO TO Statement	69
5.7 The EVALUATE Statement	70
5.8 Statements and Sentences	75
5.9 Collating Sequences	77
5.10 Practical	79
6 PERFORMing	80
6.1 Modular Programming	80
6.2 Looping	82
6.3 PERFORM ... UNTIL	85
6.4 PERFORM ... VARYING	87
6.5 PERFORMing Paragraphs	92
6.6 PERFORM ... THRU and EXIT	93
6.7 Data Validation	94
6.8 The PERFORM Procedure Structure	99
6.9 Condition Variables	99
6.10 Debugging	101
6.11 Practical	103

7	Lists	105
	7.1 List Definition	105
	7.2 List Input and Output	106
	7.3 List Calculations	109
	7.4 Sorting	113
	7.5 Lists of Lists	116
	7.6 Index-names	119
	7.7 The AFTER Phrase	120
	7.8 Practical	121
8	Tables	122
	8.1 Table Definition	122
	8.2 Table Searching	123
	8.3 Sorting Tables	127
	8.4 Look-up Tables	130
	8.5 The SEARCH Statement	132
	8.6 A Table Example	135
	8.7 Practical	138
9	String Manipulation	140
	9.1 The STRING Statement	140
	9.2 The UNSTRING Statement	143
	9.3 The INSPECT Statement	145
	9.4 Practical	150
10	Source Text Manipulation	151
	10.1 The COPY statement	151
	10.2 The REPLACING option	153
	10.3 The REPLACE statement	154

Part II INPUT-OUTPUT Modules

11	File Concepts	159
	11.1 File Organisation	159
	11.2 File Access	160
	11.3 File Status	161
	11.4 File Processing	161
	11.5 File Definition	161
	11.6 Record Definition	164
	11.7 The OPEN and CLOSE Statements	165
	11.8 The WRITE Statement	166
	11.9 The READ Statement	169

viii Contents

11.10 File Error Handling	171
11.11 Practical	172
12 Processing Sequential Files	173
12.1 Searching	173
12.2 Record Update	175
12.3 Record Insertion	177
12.4 Printing a File	180
12.5 Practical	184
13 Processing Relative Files	185
13.1 Relative File Attributes	185
13.2 OPENing and CLOSEing	187
13.3 Adding a Record	188
13.4 Updating a Record	189
13.5 Deleting a Record	189
13.6 Retrieving a Record	192
13.7 INVALID KEYs	193
13.8 Practical	194
14 Processing Indexed Files	195
14.1 Indexed File Attributes	195
14.2 OPENing and CLOSEing	197
14.3 Adding a Record	198
14.4 Updating a Record	199
14.5 Deleting a Record	201
14.6 Retrieving a Record	202
14.7 INVALID KEYs	203
14.8 Practical	204
15 SORTing and MERGEing	205
15.1 The SORT Statement	205
15.2 A Simple SORT Example	208
15.3 SORT INPUT and OUTPUT PROCEDURES	210
15.4 MERGEing	213
15.5 Practical	215
Part III The INTER-PROGRAM COMMUNICATION Module	
16 Communicating Between Programs	219
16.1 Nested programs	219
16.2 Passing Output Parameters	222

16.3 Passing Input Parameters	225
16.4 Practical	228

Part IV The REPORT WRITER Module

17 Using the Report Writer	231
17.1 The Report	231
17.2 The ENVIRONMENT DIVISION Entry	233
17.3 The DATA DIVISION Entry	234
17.4 The PROCEDURE DIVISION Entry	237
17.5 Practical	239
<i>Appendix A: COBOL 85 Language Formats</i>	<i>240</i>
<i>Appendix B: COBOL 85 Reserved Words</i>	<i>279</i>
<i>Appendix C: Character Sets (ASCII and EBCDIC)</i>	<i>284</i>
<i>Index</i>	<i>291</i>

Preface

COBOL, the COmmon Business Oriented Language, is one of many computer programming languages. It is the oldest programming language still in use and the one which is currently most widely used. COBOL's popularity reflects the fact that a majority of computing applications are of a commercial nature and COBOL was specifically designed for use in commercial and business applications.

Compared with most other programming languages COBOL has many facilities, some of which are quite sophisticated and of a relatively high level. This book covers almost all of the facilities specified in the ANSI COBOL 1985 standard, including the Nucleus, Sequential I-O, Relative I-O, Indexed I-O, Inter-Program Communication, Sort-Merge, Source Text Manipulation, and Report Writer modules, all at the highest level (Level 2). All the facilities are covered comprehensively.

This book is not solely concerned with the rules of COBOL. There is an art to programming: it is not enough simply to know the rules of COBOL, it is equally important to develop intelligible programs which have style and which also use the best techniques available in the language. A professional approach to programming is therefore encouraged at all times throughout the book.

As with a foreign language, there is only one sure way to learn a programming language, and that is by exposure to *many* examples and by plenty of practical experience. For this reason, this book contains many examples of complete COBOL programs. Also with each program is a listing of a typical input and output of a sample execution of the program. Additionally, at the end of each chapter, there are several directed practical experiences. Some of this practical work is provided by way of *trainers* (which are intended to help the reader to become familiar with the topics included in each chapter) and specified *programs* to write and test.

The material in this book has been organised into four parts – each one corresponding to a module (or group of modules) in the ANSI COBOL 85 standard. So far as possible, a deliberate attempt has been made to keep each part independent. However, of course, some parts rely upon concepts covered in previous parts, although this has been kept to a minimum. This

does mean that the parts do not necessarily have to be covered in the order in which they appear in the book.

As a further aid to learning, the material in the early part of the book has been organised so that COBOL programs can be written right from the start, from the first chapter onwards.

Although COBOL was originally designed as a programming language for *batch* computer systems (punched-card input and line-printer output), the language is being used more and more through workstations (keyboard input and display output) such as terminals connected to computers or stand-alone microcomputers. This book takes account of COBOL's use in the more recent workstation environment by assuming that input is from a keyboard and output is to a VDU display.

This book is suitable for COBOL courses in training centres and educational establishments (schools, colleges, polytechnics and universities) and for individuals who wish to learn the language by self-instruction. Also, practising COBOL programmers will find this book a useful reference source of the ANSI 1985 for COBOL.

Roger Hutty

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List of Figures

1.1	A basic COBOL computer system	4
1.2	A simple COBOL 85 program	5
1.3	Structure diagrams for the AGE-CHECK program	9
1.4	The compilation and execution stages	11
2.1	A program to add 10 to a number	20
2.2	A program to add two numbers	25
2.3	A program to add four numbers	26
2.4	A program to add three numbers, using GIVING	28
2.5	A program to add two numbers, using MOVE	30
2.6	A practical program to add numbers	31
3.1	The COST program	36
3.2	The BALANCE program	39
3.3	The DISCOUNT program	41
3.4	The SUBTRACT-PRACTICAL program	45
4.1	The INVESTMENT program	49
4.2	The COMPOUND-INTEREST program	53
4.3	The currency symbol specification	56
4.4	The TIME-AND-DATE program	58
5.1	Structure diagram of the PAY-CALCULATION program	61
5.2	The PAY-CALCULATION program	62
5.3	The WORD-ORDER program	65
5.4	Structure diagram of the ELECTRICITY-BILL program	66
5.5	The ELECTRICITY-BILL program	67
5.6	The PROCESS-MARKS program	72
5.7	The COLOUR program	73
5.8	A collating sequence specification	78
6.1	The PAY-MODULAR-VERSION program	81
6.2	The CHARACTER-DISPLAY program	83
6.3	The MORTGAGE program	84

6.4	The SHOPPING-BILL program	86
6.5	The NUMBERS-DISPLAY program	88
6.6	The TABLES program	89
6.7	The MORTGAGE-END program	91
6.8	The CHECK-AGE program	95
6.9	The VALIDATE-DAYS program	96
6.10	Structure diagram of the TABLES program	100
7.1	A list of five students' MARKS	106
7.2	Data structure diagram of MARK-LIST	107
7.3	The MARKS-INPUT-OUTPUT program	108
7.4	The AVERAGE-MARKS program	109
7.5	The MARKS-STATISTICS program	110
7.6	The SORT-NAMES program	114
7.7	Students' exam paper marks	116
7.8	The PAPER-MARKS program	117
8.1	A table of students' names and marks	123
8.2	Data structure diagram of STUDENT-TABLE	123
8.3	The FIND-STUDENT'S-MARK program	124
8.4	The SORT-CLIENTS program	128
8.5	The DAYS-IN-MONTH program	131
8.6	The DRINKS program	134
8.7	The WAGES program	136
9.1	The TV-RENTAL program	141
9.2	The TV-RENTAL-INPUT program	144
9.3	The SENTENCE-ANALYSIS program	149
11.1	Logical file organisations	160
11.2	File processing in a COBOL system	162
11.3	Data structure of PERSON record	165
11.4	The WRITE-TO-FILE program	167
11.5	The READ-FROM-FILE program	169
12.1	The STOCK-REORDER program	174
12.2	The STOCK-PRICE-CHANGE program	176
12.3	The STOCK-ITEM-INSERT program	178
12.4	The PRINT-A-FILE program	180
13.1	The PHONES-DIRECTORY program (the first three DIVISIONs)	186
13.2	The PHONES-DIRECTORY program (main paragraph)	187
13.3	The PHONES-DIRECTORY Program (adding a record)	188

13.4	The PHONES-DIRECTORY program (updating a record)	190
13.5	The PHONES-DIRECTORY program (deleting a record)	191
13.6	The PHONES-DIRECTORY program (retrieving a record)	192
14.1	The PERSONNEL-FILE program (the first three DIVISIONs)	196
14.2	The PERSONNEL-FILE program (main paragraphs)	197
14.3	The PERSONNEL-FILE program (adding a record)	198
14.4	The PERSONNEL-FILE program (updating a record)	200
14.5	The PERSONNEL-FILE program (deleting a record)	201
14.6	The PERSONNEL-FILE program (retrieving a record)	202
15.1	The SORT operation	206
15.2	A skeleton SORT program	207
15.3	The SORT-REGISTRATIONS program	209
15.4	The SORT-REGISTRATIONS-IO program	211
15.5	The MERGE-REGISTRATIONS program	213
16.1	Nested programs	219
16.2	The GET-DAY subprogram	222
16.3	The DAYS-IN program	223
16.4	The GET-DATE subprogram	225
16.5	The MONTH-DATA subprogram	226
17.1	The MONTHLY WAGES REPORT	232
17.2	The wages file	233
17.3	The MONTHLY-WAGES-REPORT program (first two DIVISIONs)	233
17.4	The MONTHLY-WAGES-REPORT program (the DATA DIVISION)	234
17.5	The MONTHLY-WAGES-REPORT program (the PROCEDURE DIVISION)	237