

# ภาคผนวกที่ 1

## การเขียนโปรแกรมด้วยภาษาต่าง ๆ

### โปรแกรมภาษาโคบอล

```
IDENTIFICATION      . DIVISION.
PROGRAM-ID.         ASS1 1.
ENVIRONMENT         DIVISION.
INPUT-OUTPUT        SECTION
FILE-CONTROL
    SELECT IN-FILE ASSIGN TO DISK
        ORGANIZATION IS LINE SEQUENTIAL
        ACCESS MODE IS SEQUENTIAL.
    SELECT OUT-FILE ASSIGN TO PRINTER.

DATA                DIVISION.
FILE                SECTION.
FD IN-FILE LABEL RECORD IS STANDARD
    VALUE OF FILE-ID 'ASS1 1 .DAT'
    DATA RECORD IS IN-REC.
01 IN-REC.
    02 SEC-NO        PIC XX.
    02 PART-NO       PIC 9999.
    02 PRE-QTY       PIC 999.
    02 PRICE         PIC 9999V99.
    02 AMT-SOLD-1    PIC 999.
    02 AMT-SOLD-2    PIC 999.
    02 AMT-SOLD-3    PIC 999.
    02 AMT-SOLD-4    PIC 999.
FD OUT-FILE LABEL RECORD IS OMITTED
    DATA RECORD IS OUT-REC.
01 OUT-REC.
    02 FILLER        PIC X(80).
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WORKING-STORAGE SECTION.

01 WORK-REC.

02 FILLER PIC X(12) VALUE SPACE.  
02 SEC-NO-OUT PIC Xx.  
02 FILLER PIC X(4) VALUE SPACE.  
02 PART-NO-OUT PIC ZZZ9.  
02 FILLER PIC X(5) VALUE SPACE.  
02 PRE-QN-OUT PIC Z9.  
02 FILLER PIC X(4) VALUE SPACE.  
02 PRICE-OUT PIC ZZZ9.99.  
02 FILLER PIC X(2) VALUE SPACE.  
02 TOTAL-PRICE-OUT PIC ZZZ9.99.  
02 FILLER PIC X(5) VALUE SPACE.  
02 MI-OUT PIC ZZ9.  
02 FILLER PIC X(2) VALUE SPACE.  
02 M2-OUT PIC ZZ9.  
02 FILLER PIC X(2) VALUE SPACE.  
02 M3-OUT PIC ZZ9.  
02 FILLER PIC X(2) VALUE SPACE.  
02 M4-OUT PIC ZZ9.  
02 FILLER PIC X(3) VALUE SPACE.  
02 ORDER-OUT PIC X(3).

01 HEAD-1.

02 FILLER PIC X(25) VALUE SPACE.  
02 FILLER PIC X(25) VALUE "INVENTORY STATUS REPORT".

01 HEAD-2.

02 FILLER PIC X(12) VALUE SPACE.  
02 FILLER PIC X(4) VALUE "PART".  
02 FILLER PIC X(2) VALUE SPACE,  
02 FILLER PIC X(4) VALUE "PART"  
02 FILLER PIC X(4) VALUE SPACE,  
02 FILLER PIC X(6) VALUE "QTY.IN".  
02 FILLER PIC X(10) VALUE SPACE.

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02 FILELR PIC X(5) VALUE "TOTAL".
    02 FILLER PIC X(12) VALUE SPACE
02 FILELR PIC X(12) VALUE "AMOUNT SOLD".
01 HEAD-3.
    02 FILLER PIC X(12) VALUE SPACE.
    02 FILLER PIC X(3) VALUE "SEC".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(4) VALUE "CODE".
    02 FILLER PIC X(4) VALUE SPACE.
    02 FILLER PIC X(5) VALUE "STOCK".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(5) VALUE "PRICE".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(5) VALUE "PRICE".
    02 FILLER PIC X(8) VALUE SPACE.
    02 FILLER PIC X(2) VALUE "M1".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(2) VALUE "M2".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(2) VALUE "M3".
    02 FILLER PIC X(3) VALUE SPACE.
    02 FILLER PIC X(2) VALUE "M4".
    02 FILLER PIC X(2) VALUE SPACE.
    02 FELLER PIC X(5) VALUE "ORDER".
01 SUB-TOTAL.
    02 FILLER PIC X(12) VALUE "SUB TOTAL ".
    02 FILLER PIC X(14) VALUE SPACE.
    02 SUB-QTY PIC ZZ9.
    02 FILLER PIC X(8) VALUE SPACE.
    02 SUB-PRICE PIC Z,ZZZ,ZZ9.99.
    02 FILLER PIC X(5) VALUE SPACE.
    02 SUB-MI PIC ZZ9.
    02 FILLER PIC X(2) VALUE SPACE.
    02 SUB-M2 PIC ZZ9.

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02 FILLER PIC X(2) VALUE SPACE.  
 02 SUB-M3 PIC ZZZ.  
 02 FILLER PIC X(2) VALUE SPACE.  
 02 SUB-M4 PIC ZZ9.  
 02 FILLER PIC X(3) VALUE SPACE.  
 02 SUB-ORDER PIC ZZZ.  
  
 01 GRAND-TOTAL.  
 02 FILLER PIC X(12) VALUE "GRAND TOTAL".  
 02 FILLER PIC X(14) VALUE SPACE.  
 02 GRAND-QTY PIC ZZ9.  
 02 FILLER PIC X(8) VALUE SPACE.  
 02 GRAND-PRICE PIC Z,ZZZ,ZZ9.99.  
 02 FILLER PIC X(5) VALUE SPACE.  
 02 GRAND-MI PIC ZZ9.  
 02 FILLER PIC X(2) VALUE SPACE.  
 02 GRAND-M2 PIC ZZ9.  
 02 FILLER PIC X(2) VALUE SPACE.  
 02 GRAND-M3 PIC ZZ9.  
 02 FILLER PIC X(2) VALUE SPACE.  
 02 GRAND-M4 PIC ZZ9.  
 02 FILLER PIC X(3) VALUE SPACE.  
 02 GRAND-ORDER PIC ZZZ.  
  
 01 LINE-1.  
 02 FILLER PIC X(80) VALUE ALL "-".  
 01 LINE-2.  
 02 FILLER PIC X(80) VALUE ALL "=",  
  
 77 EOF PIC X VALUE "N".  
 77 AVE-DEM PIC 9(7) VALUE 0.  
 77 SEC-BREAK PIC Xx.  
 77 T-PRICE PIC 9(7) VALUE 0.  
 77 S-QTY PIC 9(3) VALUE 0.  
 77 S-PRICE PIC 9(7) VALUE 0.  
 77 S-MI PIC 999 VALUE 0.

77 S-M2 PIC 999 VALUE 0.  
 77 S-M3 PIC 999 VALUE 0.  
 77 S-M4 PIC 999 VALUE 0.  
 77 G-QTY PIC 9(3) VALUE 0.  
 77 G-PRICE PIC 9(7) VALUE 0.  
 77 G-MI PIC 999 VALUE 0.  
 77 G-M2 PIC 999 VALUE 0.  
 77 G-M3 PIC 999 VALUE 0.  
 77 G-M4 PIC 999 VALUE 0.  
 77 G-ORDER PIC 999 VALUE 0.  
 77 S-ORDER PIC 999 VALUE 0.

PROCEDURE DIVISION.

MAIN-PARA.

PERFORM OPEN-PARA.  
 PERFORM PROCESS-PARA UNTIL EOF = "Y".  
 PERFORM CLOSE-PARA.

OPEN-PARA.

OPEN INPUT IN-FILE OUTPUT OUT-FILE.  
 WRITE OUT-REC FROM HEAD-1 AFTER 3 LINES.  
 WRITE OUT-REC FROM HEAD-2 AFTER 2 LINES.  
 WRITE OUT-REC FROM HEAD-3.  
 WRITE OUT-REC FROM LINE-Z.  
 READ IN-FILE AT END MOVE "Y" TO EOF.  
 IF EOF NOT= "Y" MOVE SEC-NO TO SEC-BREAK.

PROCESS-PAW.

IF SEC-NO NOT= SEC-BREAK PERFORM BREAK-PARA  
 ELSE  
 MOVE SEC-NO TO SEC-NO-OUT.  
 MOVE PART-NO TO PART-NO-OUT.  
 MOVE PRE-QTY TO PRE-QTY-OUT.  
 MOVE PRICE TO PRICE-OUT.

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COMPUTE T-PRICE = PRICE * PRE-QTY.
MOVE T-PRICE TO TOTAL-PRICE-OUT.
MOVE AMT-SOLD-1 TO MI-OUT.
MOVE AMT-SOLD-2 TO M2-OUT.
MOVE AMT-SOLD-3 TO M3-OUT.
MOVE AMT-SOLD-4 TO M4-OUT.
COMPUTE AVE-DEM = (AMT-SOLD-1 + (AMT-SOLD-2 + 2) *
      (AMT-SOLD-3 + 2) *
      (AMT-SOLD-4 / 6)).
IF AVE-DEM > PRE-QTY MOVE *****TO ORDER-OUT
      COMPUTE S-ORDER = S-ORDER + 1
      COMPUTE G-ORDER = G-ORDER + 1
      ELSE MOVE SPACE TO ORDER-OUT.

WRITE OUT-REC FROM WORK-REC.

COMPUTE S-QTY = S-QTY + PRE-QTY.
COMPUTE S-PRICE = T-PRICE + S-PRICE.
COMPUTE S-MI = S-MI + AMT-SOLD-1.
COMPUTE S-M2 = S-M2 + AMT-SOLD-2.
COMPUTE S-M3 = S-M3 + AMT-SOLD-3.
COMPUTE S-M4 = S-M4 + AMT-SOLD-4.

COMPUTE G-QTY = G-QTY + PRE-QTY.
COMPUTE G-PRICE = G-PRICE + T-PRICE.
COMPUTE G-MI = G-MI + AMT-SOLD-1.
COMPUTE G-M2 = G-M2 + AMT-SOLD-2.
COMPUTE G-M3 = G-M3 + AMT-SOLD-3.
COMPUTE G-M4 = G-M4 + AMT-SOLD-4.
MOVE S-QTY TO SUB-QTY.
MOVE S-PRICE TO SUB-PRICE.
MOVE S-MI TO SUB-MI.
MOVE S-M2 TO SUB-M2.
MOVE S-M3 TO SUB-M3.

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MOVE S-M4 TO SUB-M4.  
MOVE S-ORDER TO SUB-ORDER  
  
MOVE G-QTY TO GRAND-QTY.  
MOVE G-PRICE TO GRAND-PRICE.  
MOVE G-MI TO GRAND-MI.  
MOVE G-M2 TO GRAND-M2.  
MOVE G-M3 TO GRAND-MB.  
MOVE G-M4 TO GRAND-M4.  
MOVE G-ORDER TO GRAND-ORDER.  
READ IN-FILE NEXT AT END MOVE "Y" TO EOF.

**BREAK-PARA.**

WRITE OUT-REC FROM SUB-TOTAL AFTER 2 LINES.  
WRITE OUT-REC FROM LINE-1.  
MOVE 0 TO S-QTY, S-ORDER.  
MOVE 0 TO S-PRICE, S-MI, S-M2, S-M3, S-M4.  
MOVE SEC-NO TO SEC-BREAK.  
MOVE SEC-BREAK TO SEC-NO-OUT.

**CLOSE-PARA.**

PERFORM **BREAK-PARA.**  
WRITE OUT-REC FROM GRAND-TOTAL.  
WRITE OUT-REC FROM LINE-2.  
CLOSE IN-FILE OUT-FILE.  
STOP RUN.

## โปรแกรมเขียนด้วย Delphi (Visual Pascal)

```
program RichEdit;
uses
  Forms,
  REAbout in 'REABOUT.PAS' {AboutBox},
  REMain in 'REMain.pas' {MainForm};

{$R *.RES}

begin
  Application.Title := 'Rich Edit Control Demo';
  Application.CreateForm(TMainForm, MainForm);
  Application.Run;
end.

begin
  Application.Title := 'Rich Edit Control Demo';
  Application.CreateForm(TMainForm, MainForm);
  Application.Run;
end.
```



## โปรแกรมเขียนด้วย Visual Basic

```
Form=A:\Birthday.frm
Reference=*G{00020430-0000-0000-C000-
00000000046)#2.0#0#..\WINDOWS\SYSTEM\STDOLE2.TLB#OLE Automation
Module=Module1; A:\Modulernd.bas
IconForm="Form1"
Startup="Form1"
Command32=""
Name="Project1"
HelpContextID="0"
CompatibleMode="0"
MajorVer=1
MinorVer=0
RevisionVer=0
AutoIncrementVer=0
ServerSupportFiles=0
VersionCompanyName="dpu"
CompilationType=0
OptimizationType=0
FavorPentiumPro(tm)=0
CodeViewDebugInfo=0
NoAliasing=0
BoundsCheck=0
OverflowCheck=0
FIPointCheck=0
FDIVCheck=0
UnroundedFP=0
StartMode=0
Unattended=0
ThreadPerObject=0
MaxNumberOfThreads=1
```

โปรแกรมเขียนด้วย RPG

```
H
FMASCUST UC F 100R 6AI 1 DISK SYSOOIS
FPRINTERO F 80 DISK SYSLST
F 4D
IMASCUST BB 02 7 C1
| 1 6 CUSTNO
| 8 20 NAME
| 21 30 BALANC
| 37 50 ADDR
| 51 60 CITY
| 61 65 STATE
| 66 80 SHIPPR
| cc 03 7 C2
| 1 6 CUSTNO
OMASCUSTD 2 0103
0 CUST 10
0 30 ADD CUSTOMER
0 2 0120
0 CUST 10
0 30 NOT FOUND
```

## โปรแกรมเขียนด้วย SPSS

```
get file ='a:student.sav'.  
FREQUENCIES  
  VARIABLES=x1 x4 x5 x6 x7 x8i1 x8i2 x8i3 x8i4 x8i5 x8i6 x8i7 x8i8 x8i9 x9  
  x10i1 x10i2 x10i3 x10i4 x10i5 x10i6 x10i7 x10i8 x10i9 xl 1 x12 x14 x15  
DESCRIPTIVES  
  VARIABLES=x2 x3 x13  
  /STATISTICS=MEAN STDDEV MIN MAX.  
CROSSTABS  
  /TABLES=x9 BY x4  
  /FORMAT= AVALUE TABLES  
  /CELLS= COUNT.  
* Basic Tables.  
TABLES  
  /FORMAT BLANK MISSING('.'  
  /OBSERVATION x10i1x10i2 x10i3x10i4 x10i5x10i6 x10i7x10i8 x10i9  
  /TABLES x5 > (x10i1 + x10i2 + x10i3 + x10i4 + x10i5 + x10i6 + x10i7 + x10i8  
  + x10i9)  
  BY xl > (STATISTICS).  
T-TEST  
  /TESTVAL=8500  
  /MISSING=ANALYSIS  
  /VARIABLES=x3  
  /CRITERIA=CIN (.95)  
T-TEST  
  GROUPS=x1(1 2)  
  /MISSING=ANALYSIS  
  /VARIABLES=x3  
  /CRITERIA=CIN(.95)  
ONEWAY  
  x3 BY x5  
  /MISSING ANALYSIS.
```

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT x1 3
/METHOD=ENTER x2 x3
NPAR TEST
/CHISQUARE=x4 x6
/EXPECTED=EQUAL
/MISSING ANALYSIS.
CROSSTABS
/TABLES=x5 BY x4
/FORMAT= AVALUE TABLES
/CELLS= COUNT.
NPAR TESTS
/M-W= x7 BY x1(1 2)
/MISSING ANALYSIS.
MULT RESPONSE
GROUPS=$one 'ปัจจัยในการตัดสินใจเลือกซื้อสินค้า' (x10i1 x10i2 x10i3 x10i4
x10i5 x10i6 x10i7 x10i8 x10i9 (1)) $two 'รูปแบบโทรทัศน์ที่ท่านต้องการ' (x8i1
x8i2 x8i3 x8i4 x8i5 x8i6 x8i7 x8i8 x8i9 (1))
/FREQUENCIES=$one $two
GRAPH
/BAR(SIMPLE)=COUNT BY x1
/MISSING=REPORT.

```