CBL NOXREF,SSRANGE,NOSEQ,TEST,LIB

IDENTIFICATION DIVISION.

PROGRAM-ID. ASST1CY .

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\*\* PROGRAM COMMENT BLOCK

\*\* PROGRAM PURPOSE: SMART COLLEGE SUMMARY REPORT

\*\* LOAD SUBJECT TABLE FROM SUBJECT FILE

\*\* ACCUMULATE MARKS FILE INTO SUBJECT TABLE

\*\* PRINT SUMMARY REPORT FROM TABLE DATA

\*\* PROGRAMMER NAME: CAROLINE YATES

\*\* DATE : 11 JAN 2020

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ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOURCE-COMPUTER. IBM-390 WITH DEBUGGING MODE.

\*SOURCE-COMPUTER. IBM-390.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT F01-SUBJ-FILE

ASSIGN TO F01SUBJ.

SELECT F02-MARK-FILE

ASSIGN TO F02MARK.

SELECT F03-REPT-FILE

ASSIGN TO F03REPT.

DATA DIVISION.

FILE SECTION.

FD F01-SUBJ-FILE

RECORDING MODE IS F

RECORD CONTAINS 80 CHARACTERS

DATA RECORD IS F01-SUBJ-RECORD.

01 F01-SUBJ-RECORD.

05 PIC X(80).

FD F02-MARK-FILE

RECORDING MODE IS F

RECORD CONTAINS 80 CHARACTERS

DATA RECORD IS F02-MARK-RECORD.

01 F02-MARK-RECORD.

05 PIC X(80).

FD F03-REPT-FILE

RECORDING MODE IS F

RECORD CONTAINS 120 CHARACTERS

DATA RECORD IS F03-REPT-RECORD.

01 F03-REPT-RECORD.

05 PIC X(120).

WORKING-STORAGE SECTION.

01 W01-EOF-SUBJ PIC X VALUE SPACE.

88 W01-SUBJ-AT-EOF VALUE 'Y'.

01 W01-EOF-MARK PIC X VALUE SPACE.

88 W01-MARK-AT-EOF VALUE 'Y'.

01 W02-SUBJ-RECORD.

05 W02-SUBJ-CODE PIC X(6).

05 W02-SUBJ-NAME PIC X(20).

01 W03-SUBJ-TABLE.

05 W03-SUBJ-COUNT PIC 999 VALUE 0.

05 W03-SUBJ-MAX PIC 999 VALUE 50.

05 W03-SUBJ OCCURS 50 TIMES

DEPENDING ON W03-SUBJ-COUNT

ASCENDING KEY IS W03-SUBJ-CODE

INDEXED BY W03-SUBJ-INDX.

10 W03-SUBJ-CODE PIC X(6) VALUE SPACES.

10 W03-SUBJ-NAME PIC X(20) VALUE SPACES.

10 W03-A-CNT PIC 9(5) VALUE 0.

10 W03-B-CNT PIC 9(5) VALUE 0.

10 W03-C-CNT PIC 9(5) VALUE 0.

10 W03-D-CNT PIC 9(5) VALUE 0.

10 W03-F-CNT PIC 9(5) VALUE 0.

\*

\*\*\*\*\* RECORD FOR MARKS FILE

\*

01 W04-MARK-RECORD.

05 W04-MARK-NAME PIC X(20).

05 W04-MARK-SUBJ PIC X(6).

05 PIC X.

05 W04-MARK-DATE PIC X(8).

05 W04-MARK-SCORE PIC 999.

\*

\*\*\*\*\* PRINT LINES

\*

01 W05-HEAD1 PIC X(60) VALUE

' ABC COLLEGE TESTING CENTER'.

01 W05-HEAD2.

05 PIC X(45) VALUE

' TEST RESULTS SUMMARY DATE:'.

05 W05-HEAD2-DATE PIC B9999/99/99.

05 PIC X(4) VALUE SPACES.

01 W05-HEAD3.

05 PIC X(21) VALUE

' SUBJECT NAME'.

05 PIC X(40) VALUE

' A B C D F'.

01 W06-REPT-LINE.

05 W06-REPT-SUBJ PIC BX(20).

05 W06-REPT-COUNT OCCURS 5 PIC BBZZ,ZZ9.

\*

\*\*\*\*\* GRAND TOTALS

\*

01 W07-SUB PIC 99 VALUE 0.

01 W07-TOT-TABLE.

05 W07-TOT-COUNT OCCURS 5 PIC 9(5) VALUE 0.

PROCEDURE DIVISION.

D DISPLAY 'ASSN1V3 MAIN STARTING'

7 PERFORM A100-INIT

8 PERFORM A200-PROCESS UNTIL W01-MARK-AT-EOF

9 PERFORM A300-FINAL

0 D DISPLAY 'MAIN STOPPING'

1 STOP RUN

2 .

3

4 A100-INIT.

5 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6 \*

7 \* INITIALIZE THE PROGRAM

8 \*

9 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

0 D DISPLAY 'A100-INIT RUNNING'

1 OPEN INPUT F01-SUBJ-FILE F02-MARK-FILE

2 OPEN OUTPUT F03-REPT-FILE

3 MOVE 'N' TO W01-EOF-SUBJ W01-EOF-MARK

4 PERFORM A110-LOAD-SUBJ

5 PERFORM B100-READ-MARK

6 .

7

8 A110-LOAD-SUBJ.

9 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

0 \*

1 \* READ SUBJECT FILE TO LOAD TABLE

2 \*

3 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

4 \* IN THIS SECTION, YOU WILL BE LOADING THE SUBJECT

5 \* TABLE WITH THE SUBJECT CODES AND NAMES

6 \* THE FIRST THING YOU MUST DO IS A PRIME READ ON THE

7 \* SUBJECT FILE. THEN YOU WILL USE A PERFORM UNTIL YOU

8 \* REACH THE END OF THE SUBJECT FILE. YOU WILL LOOP THROUGH

9 \* THE SUBJECT FILE, AND LOAD EACH CODE INTO THE TABLE.

0 \* IMPORTANT - BEFORE YOU END-PERFORM, DO ANOTHER READ OF THE

1 \* SUBJECT FILE. ONCE THE TABLE IS LOADED WITH THE SUBJECTS

2 \* YOU ARE FINISHED WITH THE SUBJECT FILE. THE PERFORM WILL

\* END AND YOU WILL RETURN TO THE CALLING PARAGRAPH. SO WHAT

READ F01-SUBJ-FILE INTO W02-SUBJ-RECORD

AT END SET W01-SUBJ-AT-EOF TO TRUE

END-READ

PERFORM UNTIL W01-SUBJ-AT-EOF

IF W03-SUBJ-COUNT < W03-SUBJ-MAX

ADD 1 TO W03-SUBJ-COUNT

<- moved this and need to use working

storage not file

SET W03-SUBJ-INDX TO W03-SUBJ-COUNT

MOVE W02-SUBJ-CODE

TO W03-SUBJ-CODE(W03-SUBJ-INDX)

MOVE W02-SUBJ-NAME

TO W03-SUBJ-NAME(W03-SUBJ-INDX)

END-IF

READ F01-SUBJ-FILE INTO W02-SUBJ-RECORD

AT END SET W01-SUBJ-AT-EOF TO TRUE

END-READ

END-PERFORM.

A200-PROCESS.

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\* PROCESS ONE MARK RECORD

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D DISPLAY 'A200-PROCESS RUNNING'

D DISPLAY "INPUT RECORD " W04-MARK-RECORD

\*\*\*\* FIND THE SUBJECT CODE IN THE TABLE - BINARY

\* WHEN YOU GET TO THIS PART, YOU WILL USE

\* SEARCH ALL. YOU ARE SEARCHING THE TABLE TO FIND

\* THE SUBJECT CODE THAT MATCHES THE SUBJECT CODE THAT

\* HAS BEEN READ IN FROM THE MARK RECORD. YOU HAVE ALREAD

\* DONE A PRIME READ ON THE MARK FILE, SO AFTER THE SEARCH, YOU

\* WILL HAVE TO DO ANOTHER READ. THE READ IS IN IT'S OWN

\* PARAGRAPH SO YOU JUST PERFORM THE PARAGRAPH AFTER THE

\* END-SEARCH

\* REMEMBER THAT THE SEARCH ALL CAN ONLY HAVE ONE WHEN. WHEN

\* YOU FIND THE SUBJECT CODE MATCHING THE CODE FROM THE MARK

\* RECORD, YOU HAVE SOME CHOICES. YOU CAN USE EVALUATE TRUE

\* OR A NESTED IF TO ADD ONE TO THE CORRECT COUNT IN THE

\* SUBJECT TABLE FOR THE MARK (SCORE) THE STUDENT RECEIVED

\* SO, WHEN YOU FIND THE MATCH, YOU IMMEDIATELY START THE

\* END-SEARCH

\* REMEMBER THAT THE SEARCH ALL CAN ONLY HAVE ONE WHEN. WHEN

\* YOU FIND THE SUBJECT CODE MATCHING THE CODE FROM THE MARK

\* RECORD, YOU HAVE SOME CHOICES. YOU CAN USE EVALUATE TRUE

\* OR A NESTED IF TO ADD ONE TO THE CORRECT COUNT IN THE

\* SUBJECT TABLE FOR THE MARK (SCORE) THE STUDENT RECEIVED

\* SO, WHEN YOU FIND THE MATCH, YOU IMMEDIATELY START THE

\* IF OR EVALUATE TRUE

\*

SEARCH ALL W03-SUBJ

AT END

MOVE 'SUBJECT NOT FOUND' TO W04-MARK-NAME

WHEN W03-SUBJ-CODE(W03-SUBJ-INDX) = W04-MARK-SUBJ

IF W04-MARK-SCORE >= 90

ADD 1 TO W03-A-CNT(W03-SUBJ-INDX)

ELSE

IF W04-MARK-SCORE >= 80

ADD 1 TO W03-B-CNT(W03-SUBJ-INDX)

ELSE

IF W04-MARK-SCORE >= 70

ADD 1 TO W03-C-CNT(W03-SUBJ-INDX)

ELSE

IF W04-MARK-SCORE >= 60

ADD 1 TO W03-D-CNT(W03-SUBJ-INDX)

ELSE

ADD 1 TO W03-F-CNT(W03-SUBJ-INDX)

END-IF

<- if this isn’t working properly, maybe try evaluate true instead of ifs, otherwise looks fine

END-IF

END-IF

END-IF

END-SEARCH

PERFORM B100-READ-MARK

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A300-FINAL.

A300-FINAL.

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\* CLOSE UP THE PROGRAM

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D DISPLAY 'A300-FINAL RUNNING'

WRITE F03-REPT-RECORD FROM W05-HEAD1

AFTER ADVANCING PAGE

MOVE FUNCTION CURRENT-DATE (1:8) TO

W05-HEAD2-DATE

WRITE F03-REPT-RECORD FROM W05-HEAD2

AFTER ADVANCING 1 LINE

WRITE F03-REPT-RECORD FROM W05-HEAD3

AFTER ADVANCING 2 LINE

MOVE SPACES TO F03-REPT-RECORD

WRITE F03-REPT-RECORD

AFTER ADVANCING 1 LINE

PERFORM VARYING W03-SUBJ-INDX FROM 1 BY 1

UNTIL W03-SUBJ-INDX > W03-SUBJ-COUNT

\* HERE YOU CAN DO AN IF STATEMENT TO CHECK TO MAKE SURE

\* THAT THERE IS AT LEAST ONE MARK IN A SUBJECT ROW (ONE

\* OF THE COUNTS HAS TO BE GREATER THAN ZERO)

\* THIS WILL ELIMINATE THE SUBJECT THAT HAS ZEROS ALL THE

\* WAY ACROSS. AFTER YOU MOVE THE COUNTS TO THE REPORT

\* ADD THE COUNT TO THE TOTAL FOR THAT COLUMN

IF W03-A-CNT(W03-SUBJ-INDX) > 0

OR W03-B-CNT(W03-SUBJ-INDX) > 0

OR W03-C-CNT(W03-SUBJ-INDX) > 0

OR W03-D-CNT(W03-SUBJ-INDX) > 0

OR W03-F-CNT(W03-SUBJ-INDX) > 0

MOVE W03-SUBJ-NAME(W03-SUBJ-INDX) TO W06-REPT-SUBJ

MOVE W03-A-CNT(W03-SUBJ-INDX) TO W06-REPT-COUNT(1)

ADD W03-A-CNT(W03-SUBJ-INDX) TO W07-TOT-COUNT(1)

MOVE W03-B-CNT(W03-SUBJ-INDX) TO W06-REPT-COUNT(2)

ADD W03-B-CNT(W03-SUBJ-INDX) TO W07-TOT-COUNT(2)

MOVE W03-C-CNT(W03-SUBJ-INDX) TO W06-REPT-COUNT(3)

ADD W03-C-CNT(W03-SUBJ-INDX) TO W07-TOT-COUNT(3)

MOVE W03-D-CNT(W03-SUBJ-INDX) TO W06-REPT-COUNT(4)

ADD W03-D-CNT(W03-SUBJ-INDX) TO W07-TOT-COUNT(4)

MOVE W03-F-CNT(W03-SUBJ-INDX) TO W06-REPT-COUNT(5)

ADD W03-F-CNT(W03-SUBJ-INDX) TO W07-TOT-COUNT(5)

WRITE F03-REPT-RECORD FROM W06-REPT-LINE

AFTER ADVANCING 1 LINE

END-IF

END-PERFORM

\*\*\* PRINT TOTALS

PERFORM VARYING W07-SUB FROM 1 BY 1

UNTIL W07-SUB > 5

MOVE W07-TOT-COUNT(W07-SUB)

TO W06-REPT-COUNT(W07-SUB)

END-PERFORM

MOVE 'TOTAL' TO W06-REPT-SUBJ

WRITE F03-REPT-RECORD FROM W06-REPT-LINE

AFTER ADVANCING 2 LINE

CLOSE F01-SUBJ-FILE F02-MARK-FILE F03-REPT-FILE

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B100-READ-MARK.

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\* READ ONE RECORD

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READ F02-MARK-FILE INTO W04-MARK-RECORD

AT END SET W01-MARK-AT-EOF TO TRUE

MOVE SPACES TO W04-MARK-RECORD

END-READ

.

\* ADD THE COUNT TO THE TOTAL FOR THAT COLUMN