

DATE: 14-11-2025 15:43:43 USER: COBOL JOB: MATMUL PAGE: 0000

PAGE: 0000

THE

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1  
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3  
4 MATMUL COBOL      FILE NAME/TYPE= /COBOL/MATH/MATMUL.COB  
5 MATMUL COBOL  
6 MATMUL COBOL      CREATION DATE/TIME= 14-11-2025 15:43:43  
7 MATMUL COBOL  
8 MATMUL COBOL      FILE= 001      PAGES= 0002      LINES= 000104  
9 MATMUL COBOL  
10 MATMUL COBOL     SYSTEM= LINUX(6.16.8+KALI-AMD64)  
11 MATMUL COBOL  
12 MATMUL COBOL     SYSID= ACID      SYSUSER= ACID  
13 MATMUL COBOL  
14 MATMUL COBOL     FORM= SMALL  
15 MATMUL COBOL  
16 MATMUL COBOL     CHAR= FONTMONO  
17 MATMUL COBOL  
18 MATMUL COBOL     PRT1403 VERSION= 1.5.PRE-RELEASE
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19  
20  
21  
22     CCCCCCCC 00000000 BBBB BBBB 00000000 LL  
23     CCCCCCCCCC 0000000000 BBBB BBBB 0000000000 LL  
24     CC   CC 00    00 BB   BB 00    00 LL  
25     CC   00    00 BB   BB 00    00 LL  
26     CC   00    00 BBBB BBBB 00    00 LL  
27     CC   00    00 BBBB BBBB 00    00 LL  
28     CC   00    00 BB   BB 00    00 LL  
29     CC   CC 00    00 BB   BB 00    00 LL  
30     CCCCCCCCCC 0000000000 BBBB BBBB 0000000000 LLLLLLLL  
31     CCCCCCCC 00000000 BBBB BBBB 00000000 LLLLLL
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46          00000      00000      1
47          0000000      0000000      11
48          00          00          00      111
49          00          00          00      11
50          00          00          00      11
51          00          00          00      11
52          00          00          00      11
53          00          00          00      11
54          0000000      0000000      111111
55          00000      00000      111111

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58 ****  
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1 000001 IDENTIFICATION DIVISION.
2 000002 PROGRAM-ID. MatrixCalculation.

3
4 000004 ENVIRONMENT DIVISION.
5 000005 DATA DIVISION.

6
7 000007 WORKING-STORAGE SECTION.

8
9 000009 01 M-SIZE PIC 9(4) COMP VALUE 400.

10
11 000011 01 RESULT1 PIC S9(14) COMP VALUE 0.
12 000012 01 RESULT2 PIC S9(14) COMP VALUE 0.

13
14 000014 01 TIME1 COMP-2 VALUE 0.

15 000015 01 TIME2 COMP-2 VALUE 0.

16
17 000017 01 M1.

18 000018 05 M1-ROW OCCURS 400 TIMES.

19 000019 10 M1-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

20
21 000020 01 M2.

22 000021 05 M2-ROW OCCURS 400 TIMES.

23 000022 10 M2-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

24
25 000023 01 M3.

26 000024 05 M3-ROW OCCURS 400 TIMES.

27 000025 10 M3-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

28
29 000026 01 I PIC S9(10) COMP.

30 000027 01 J PIC S9(10) COMP.

31 000028 01 K PIC S9(10) COMP.

32
33 000029 01 START-TIME PIC S9(10) COMP.

34 000030 01 END-TIME PIC S9(10) COMP.

35
36 000031 01 TEMP PIC S9(10) COMP.

37 000032 01 RESULT1_TXT PIC 9(14).

38 000033 01 RESULT2_TXT PIC 9(14).

39 000034 01 TIME1_TXT PIC 9(3).9(6).

40 000035 01 TIME2_TXT PIC 9(3).9(6).

41
42 000036 01 PROCEDURE DIVISION.

43 000037 * -----

44 000038 ACCEPT START-TIME FROM TIME.

45 000039 MOVE 0 TO RESULT1.

46 000040 PERFORM VARYING I FROM 1 BY 1 UNTIL 100 < I

47 000041 PERFORM VARYING J FROM 1 BY 1 UNTIL 1000000 < J

48 000042 ADD J TO RESULT1

49 000043 END-PERFORM

50 000044 END-PERFORM.

51 000045 ACCEPT END-TIME FROM TIME.

52 000046 COMPUTE TIME1 = (END-TIME - START-TIME) / 100.

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1 000061      PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
2 000062      PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
3 000063          ADD I TO J GIVING M1-ELEMENTS(I, J)
4 000064          ADD I TO J GIVING M2-ELEMENTS(I, J)
5 000065      END-PERFORM
6 000066
7 000067      END-PERFORM.
8 000068
9 000069      PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
10 000070      PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
11 000071          MOVE 0 TO M3-ELEMENTS(I, J)
12 000072          PERFORM VARYING K FROM 1 BY 1 UNTIL M-SIZE < K
13 000073              MULTIPLY M1-ELEMENTS(I, K) BY M2-ELEMENTS(K, J)
14 000074                  GIVING TEMP
15 000075          ADD TEMP TO M3-ELEMENTS(I, J)
16 000076      END-PERFORM
17 000077      END-PERFORM
18 000078      END-PERFORM.
19 000079
20 000080          MOVE 0 TO RESULT2.
21 000081
22 000082      PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
23 000083      PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
24 000084          ADD M3-ELEMENTS(I, J) TO RESULT2
25 000085      END-PERFORM
26 000086      END-PERFORM.
27 000087
28 000088          ACCEPT END-TIME FROM TIME.
29 000089          COMPUTE TIME2 = (END-TIME - START-TIME) / 100.
30 000090
31 000091      * -----
32 000092
33 000093          MOVE RESULT1 TO RESULT1_TXT
34 000094          MOVE RESULT2 TO RESULT2_TXT
35 000095          MOVE TIME1 TO TIME1_TXT
36 000096          MOVE TIME2 TO TIME2_TXT
37 000097
38 000098          DISPLAY 'COBOL : Result= ' RESULT1_TXT
39 000099              ', Time= ' TIME1_TXT ' sec'
40 000100              ', Result= ' RESULT2_TXT
41 000101              ', Time= ' TIME2_TXT ' sec'.
42 000102
43 000103      STOP RUN.
44 000104
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