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***** 00010002
** SAMPLE CALLABLE SERVICE PROGRAM. ** 00020002
** SHARE SESSION: INTRODUCING LE CALLABLE SERVICES ** 00030002
** THOMAS PETROLINO ** 00040002
** IBM LANGUAGE ENVIRONMENT ** 00050002
** TAPETRO@US.IBM.COM ** 00051002
***** 00052002
IDENTIFICATION DIVISION. 00060000
PROGRAM-ID. CSSQRTCB. 00070004
                                00080000
                                00090000
DATA DIVISION. 00100000
WORKING-STORAGE SECTION. 00110002
***** 00120002
** DEFINE SPACE FOR A LANGUAGE ENVIRONMENT FEEDBACK ** 00120002
** CODE. 12 TOTAL BYTES ** 00120102
** INCLUDE A COPY OF CEEIGZCT TO GET PRE-DEFINED ** 00120202
** LANGUAGE ENVIRONMENT CONDITION TOKENS. ** 00120302
***** 00120402
01 FC. 00120502
    02 CONDITION-TOKEN-VALUE. 00120602
        COPY CEEIGZCT. 00120702
            03 CASE-1-CONDITION-ID. 00120802
                04 SEVERITY PIC S9(4) BINARY. 00120902
                04 MSG-NO PIC S9(4) BINARY. 00121002
            03 CASE-SEV-CTL PIC X. 00121100
            03 FACILITY-ID PIC XXX. 00121200
    02 I-S-INFO PIC S9(9) BINARY. 00121300
***** 00121402
** DEFINE SOME STORAGE TO BE USED BY THE LANGUAGE ** 00121502
** ENVIRONMENT MATH CALLABLE SERVICES. ** 00121602
***** 00121902
01 MY-INPUT COMP-1. 00126000
01 RESULT COMP-1. 00129000
01 RESULT2 PIC ZZZZ.99. 00129100
***** 00129202
** DEFINE SOME STORAGE TO BE USED BY THE LANGUAGE ** 00129302
** ENVIRONMENT MESSAGING CALLABLE SERVICES ** 00129402
***** 00129502
01 MSG-DEST PIC S9(9) BINARY VALUE 2. 00129600
01 MY-MSG-STRING. 00129700
    02 MY-STRING-LEN PIC S9(4) BINARY. 00129800
    02 MY-STRING-TEXT. 00129900
        03 MY-STRING-CHAR PIC X(256). 00130005
01 MY-OUTPUT-STRING. 00130403
    02 MY-OUTPUT-STRING-LEN PIC S9(4) BINARY VALUE 38. 00130503
    02 MY-OUTPUT-STRING-TEXT PIC X(19) 00130603
        VALUE "THE SQUARE ROOT OF ". 00130703
    02 MY-OUTPUT-STRING-INPUT PIC ZZZ9.99. 00130803
    02 MY-OUTPUT-STRING-TEXT2 PIC X(5) VALUE " IS: ". 00130903
    02 MY-OUTPUT-STRING-RESULT PIC ZZZ9.99. 00131003
***** 00131102
** DEFINE SOME STORAGE TO BE USED BY THE LANGUAGE ** 00131202
** ENVIRONMENT CEE3DMP CALLABLE SERVICE ** 00131302
***** 00131402
01 DUMP-TITLE PIC X(80). 00131500
01 DUMP-OPTIONS PIC X(255). 00131600
***** 00131702

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MOVE 22 TO MY-PIC-LEN.                                00143805
MOVE "MM/DD/YYYY HH:MI:SS AP" TO MY-PIC-TEXT.        00143905
* *****                                             00144002
* ** NOW CALL CEEDATM. INPUT: LILIAN SECONDS **      00144102
* **          PICTURE STRING **                     00144202
* **          IT RETURNS: **                        00144302
* ** INPUT DATE/TIME AS A CHARACTER STRING. **      00144402
* ** FEEDBACK CODE **                               00144502
* ** REPORT ERROR AND STOP IF CEEDATM FAILS. **    00144602
* *****                                             00144702
CALL "CEEDATM" USING MY-SECS-LILIAN,                00144802
MY-PIC-STRING,                                     00144902
MY-TIMESTAMP, FC.                                  00145002
IF NOT CEE000 OF FC THEN                             00145102
* *****                                             00145202
* ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE **    00145302
* *****                                             00145402
CALL "CEEMSG" USING FC, MSG-DEST, OMITTED          00145502
* *****                                             00145602
* ** CALL CEE3DMP TO PRODUCE CEEDUMP **             00145702
* *****                                             00145802
CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC  00145902
CALL "CEE3ABD" USING ABDCODE , TIMING              00146006
END-IF.                                              00146102
* *****                                             00146202
* ** MOVE THE RESULT FROM CEEDATM INTO A VARYING ** 00146302
* ** STRING SO WE CAN USE CEEMOUT TO OUTPUT IT. ** 00146402
* *****                                             00146502
MOVE 22 TO MY-STRING-LEN.                            00146605
MOVE MY-TIMESTAMP TO MY-STRING-TEXT.                00146705
* *****                                             00146802
* ** NOW CALL CEEMOUT. INPUT: STRING TO WRITE **    00146902
* **          DESTINATION **                         00147002
* **          IT RETURNS: **                        00147102
* ** FEEDBACK CODE **                               00147202
* ** REPORT ERROR AND STOP IF CEEMOUT FAILS. **    00147302
* *****                                             00147402
CALL "CEEMOUT" USING MY-MSG-STRING, MSG-DEST, FC.  00147502
IF NOT CEE000 OF FC THEN                             00147602
* *****                                             00147702
* ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE **    00147802
* *****                                             00147902
CALL "CEEMSG" USING FC, MSG-DEST, OMITTED          00148002
* *****                                             00148102
* ** CALL CEE3DMP TO PRODUCE CEEDUMP **             00148202
* *****                                             00148302
CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC  00148402
CALL "CEE3ABD" USING ABDCODE , TIMING              00148506
END-IF.                                              00148602
* *****                                             00148702
* ** MOVE STARTUP STRING INTO OUTPUT STRING USED ** 00148802
* ** PREVIOUSLY SO WE CAN OUTPUT IT WITH CEEMOUT ** 00148902
* *****                                             00149002
MOVE 16 TO MY-STRING-LEN.                            00149105
MOVE "IN MAIN PROGRAM!" TO MY-STRING-TEXT.          00150005
* *****                                             00152002
* ** NOW CALL CEEMOUT. INPUT: STRING TO WRITE **    00153002

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*          **          DESTINATION          **          00154002
*          **          IT RETURNS:          **          00155002
*          **          FEEDBACK CODE          **          00156002
*          ** REPORT ERROR AND STOP IF CEEMOUT FAILS. **          00157002
*          *****          00158002
*          CALL "CEEMOUT" USING MY-MSG-STRING, MSG-DEST, FC. 00170000
*          IF NOT CEE000 OF FC THEN 00180000
*          *****          00181002
*          ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE ** 00182002
*          *****          00183002
*          CALL "CEEMSG" USING FC, MSG-DEST, OMITTED 00184002
*          *****          00185002
*          ** CALL CEE3DMP TO PRODUCE CEEDUMP ** 00186002
*          *****          00187002
*          CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00191000
*          CALL "CEE3ABD" USING ABDCODE , TIMING 00200006
*          END-IF. 00210000
*          *****          00210102
*          ** SETUP TO CALL CEESSTQT WITH 9 AS INPUT. ** 00210202
*          *****          00210402
*          MOVE 9 TO MY-INPUT. 00210500
*          *****          00210602
*          ** NOW CALL CEESSTQT. INPUT: 9 ** 00210702
*          **          IT RETURNS:          ** 00210902
*          **          FEEDBACK CODE          ** 00211002
*          **          RESULT          ** 00211102
*          ** REPORT ERROR AND STOP IF CEESSTQT FAILS. ** 00211202
*          *****          00211302
*          CALL "CEESSTQT" USING MY-INPUT, FC, RESULT. 00211402
*          IF NOT CEE000 OF FC THEN 00211502
*          *****          00211602
*          ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE ** 00211702
*          *****          00211802
*          CALL "CEEMSG" USING FC, MSG-DEST, OMITTED 00211902
*          *****          00212002
*          ** CALL CEE3DMP TO PRODUCE CEEDUMP ** 00212102
*          *****          00212202
*          CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00212402
*          CALL "CEE3ABD" USING ABDCODE , TIMING 00212506
*          END-IF. 00212602
*          *****          00212702
*          ** DISPLAY THE OUTPUT. ** 00212802
*          *****          00212902
*          MOVE RESULT TO MY-OUTPUT-STRING-RESULT. 00213003
*          MOVE MY-INPUT TO MY-OUTPUT-STRING-INPUT. 00213103
*          *****          00213203
*          ** NOW CALL CEEMOUT. INPUT: STRING TO WRITE ** 00213303
*          **          DESTINATION          ** 00213403
*          **          IT RETURNS:          ** 00213503
*          **          FEEDBACK CODE          ** 00213603
*          ** REPORT ERROR AND STOP IF CEEMOUT FAILS. ** 00213703
*          *****          00213803
*          CALL "CEEMOUT" USING MY-OUTPUT-STRING, MSG-DEST, FC. 00213903
*          IF NOT CEE000 OF FC THEN 00214003
*          *****          00214103
*          ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE ** 00214203
*          *****          00214303

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MOVE 2500 TO MY-INPUT                                00220402
* *****
* ** NOW CALL CEESST. INPUT: 2500                    **      00220502
* **                                               **      00220602
* **           IT RETURNS:                          **      00220702
* **     FEEDBACK CODE                             **      00220802
* **     RESULT                                     **      00220902
* ** REPORT ERROR AND STOP IF CEESST FAILS.        **      00221002
* *****
* CALL "CEESST" USING MY-INPUT, FC, RESULT.         00221102
* IF NOT CEE000 OF FC THEN                          00221202
*   CALL "CEEMSG" USING FC, MSG-DEST, OMITTED      00221302
*   CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00221402
*   CALL "CEE3ABD" USING ABDCODE , TIMING           00221502
* END-IF.                                           00221606
* *****
* ** DISPLAY THE OUTPUT.                            **      00221702
* *****
* MOVE RESULT TO MY-OUTPUT-STRING-RESULT.          00221802
* MOVE MY-INPUT TO MY-OUTPUT-STRING-INPUT.         00221902
* *****
* ** NOW CALL CEEMOUT. INPUT: STRING TO WRITE      **      00222002
* **                                               **      00222103
* **           DESTINATION                          **      00222203
* **           IT RETURNS:                          **      00222303
* **     FEEDBACK CODE                             **      00222403
* ** REPORT ERROR AND STOP IF CEEMOUT FAILS.        **      00222503
* *****
* CALL "CEEMOUT" USING MY-OUTPUT-STRING, MSG-DEST, FC. 00222603
* IF NOT CEE000 OF FC THEN                          00222703
* *****
* ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE **    00222803
* *****
* CALL "CEEMSG" USING FC, MSG-DEST, OMITTED          00222903
* *****
* ** CALL CEE3DMP TO PRODUCE CEEDUMP                **    00223003
* *****
* CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00223103
* CALL "CEE3ABD" USING ABDCODE , TIMING              00223203
* END-IF.                                           00223303
* *****
* ** SETUP TO CALL CEESST WITH -99 AS INPUT.        **    00223403
* ** WE SHOULD EXPECT TO SEE AN ERROR HERE.        **    00223503
* *****
* MOVE -99 TO MY-INPUT.                              00223603
* *****
* ** NOW CALL CEESST. INPUT: -99                    **    00223703
* **                                               **    00223803
* **           IT RETURNS:                          **    00223903
* **     FEEDBACK CODE                             **    00224006
* **     RESULT                                     **    00224103
* ** REPORT ERROR AND STOP IF CEESST FAILS.        **    00224202
* *****
* CALL "CEESST" USING MY-INPUT, FC, RESULT.         00224302
* IF NOT CEE000 OF FC THEN                          00224402
*   CALL "CEEMSG" USING FC, MSG-DEST, OMITTED      00224502
*   CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00224602
*   CALL "CEE3ABD" USING ABDCODE , TIMING           00224702
* END-IF.                                           00224802
* *****
* ** SETUP TO CALL CEESST WITH -99 AS INPUT.        **    00224902
* ** WE SHOULD EXPECT TO SEE AN ERROR HERE.        **    00225002
* *****
* MOVE -99 TO MY-INPUT.                              00225102
* *****
* ** NOW CALL CEESST. INPUT: -99                    **    00225202
* **                                               **    00225302
* **           IT RETURNS:                          **    00225402
* **     FEEDBACK CODE                             **    00225502
* **     RESULT                                     **    00225602
* ** REPORT ERROR AND STOP IF CEESST FAILS.        **    00225702
* *****
* CALL "CEESST" USING MY-INPUT, FC, RESULT.         00225802
* IF NOT CEE000 OF FC THEN                          00225902
*   CALL "CEEMSG" USING FC, MSG-DEST, OMITTED      00226006
*   CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00226102
*   CALL "CEE3ABD" USING ABDCODE , TIMING           00226202
* END-IF.
* *****

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*          ** DISPLAY THE OUTPUT.          **          00226302
*          *****                          *****    00226402
*          MOVE RESULT TO MY-OUTPUT-STRING-RESULT.    00226503
*          MOVE MY-INPUT TO MY-OUTPUT-STRING-INPUT.   00226603
*          *****                          *****    00226703
*          ** NOW CALL CEEMOUT. INPUT: STRING TO WRITE ** 00226803
*          **          DESTINATION          **          00226903
*          **          IT RETURNS:         **          00227003
*          **          FEEDBACK CODE       **          00227103
*          ** REPORT ERROR AND STOP IF CEEMOUT FAILS. ** 00227203
*          *****                          *****    00227303
*          CALL "CEEMOUT" USING MY-OUTPUT-STRING, MSG-DEST, FC. 00227403
*          IF NOT CEE000 OF FC THEN                    00227503
*          *****                          *****    00227603
*          ** USE CEEMSG TO DISPLAY LANG. ENV. MESSAGE ** 00227703
*          *****                          *****    00227803
*          CALL "CEEMSG" USING FC, MSG-DEST, OMITTED    00227903
*          *****                          *****    00228003
*          ** CALL CEE3DMP TO PRODUCE CEEDUMP          ** 00228103
*          *****                          *****    00228203
*          CALL "CEE3DMP" USING DUMP-TITLE, DUMP-OPTIONS, FC 00228303
*          CALL "CEE3ABD" USING ABDCODE , TIMING        00228406
*          END-IF.                                     00228503
*          *****                          *****    00228802
*          ** WE ARE OUTTA HERE!                    **    00228902
*          *****                          *****    00229002
*          GOBACK.                                    00240000

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COBOL EXAMPLE

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