START

    // Define constants

    DECLARE num HIGH\_VALUE = 999999  // Sentinel value for EOF

    DECLARE string bothFilesDone = "N"  // Indicator for when both files are done

    // Declare variables for room contributions

    DECLARE string roomAName

    DECLARE num roomAValue

    DECLARE string roomBName

    DECLARE num roomBValue

    // Declare file variables

    DECLARE InputFile roomAFile

    DECLARE InputFile roomBFile

    DECLARE OutputFile mergedFile

    // Function to prepare files for reading and writing

    FUNCTION getReady()

        OPEN roomAFile AS "roomAFile.dat"

        OPEN roomBFile AS "roomBFile.dat"

        OPEN mergedFile AS "mergedFile.dat"

        CALL readA()  // Read first record from Room A

        CALL readB()  // Read first record from Room B

        CALL checkBoth()  // Check if both files are done

    ENDFUNCTION

    // Function to read the next record from Room A

    FUNCTION readA()

        INPUT roomAName, roomAValue FROM roomAFile

        IF EOF(roomAFile) THEN

            roomAValue = HIGH\_VALUE  // Set HIGH\_VALUE if Room A is done

        ENDIF

    ENDFUNCTION

    // Function to read the next record from Room B

    FUNCTION readB()

        INPUT roomBName, roomBValue FROM roomBFile

        IF EOF(roomBFile) THEN

            roomBValue = HIGH\_VALUE  // Set HIGH\_VALUE if Room B is done

        ENDIF

    ENDFUNCTION

    // Function to check if both files are done

    FUNCTION checkBoth()

        IF roomAValue == HIGH\_VALUE AND roomBValue == HIGH\_VALUE THEN

            bothFilesDone = "Y"  // Mark both files as done if both hit EOF

        ENDIF

    ENDFUNCTION

    // Main merging loop

    FUNCTION detailLoop()

        WHILE bothFilesDone != "Y"

            IF roomAValue > roomBValue THEN

                // Room A's contribution is larger, write it to the merged file

                OUTPUT roomAName, roomAValue TO mergedFile

                CALL readA()  // Read next record from Room A

            ELSE

                // Room B's contribution is larger or equal, write it to the merged file

                OUTPUT roomBName, roomBValue TO mergedFile

                CALL readB()  // Read next record from Room B

            ENDIF

            CALL checkBoth()  // Check if both files have finished

        ENDWHILE

    ENDFUNCTION

    // Function to close all files

    FUNCTION allDone()

        CLOSE roomAFile

        CLOSE roomBFile

        CLOSE mergedFile

    ENDFUNCTION

    // Start the merging process

    CALL getReady()

    CALL detailLoop()

    CALL allDone()

STOP