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START

// pre-release midday and midnight temperatures

middayTotal← 0
midnightTotal← 0
highest_mid_temp← 0
lowest_night_temp← 99
highday← 0
lownight← 0
day_count← 0
day← 0
count← 0
averageDay← 0
averageNight← 0

// populating my lists
daytemp ← [ ]
nighttemp ← [ ]

// input and store midday and midnight temperatures

DEF Temperatures()
    FOR count = 1 TO 2
        middayTemp ← INPUT "input midday temp"

        WHILE middayTemp < 0 or middayTemp > 100
            OUTPUT "error data out of range try again"
            middayTemp ← INPUT "input midday temp"
            daytemp.append(middayTemp)

        ENDWHILE
    ENDFOR

    FOR count = 1 TO 2
        midnightTemp ← INPUT "input midnight temp"

        WHILE midnightTemp < 0 or midnightTemp > 100
            OUTPUT "error data out of range try again"
            midnightTemp ← INPUT "input midnight temp"
            nighttemp.append(midnightTemp)

        ENDWHILE
    ENDFOR

FOR day_count = 1 TO 30
    day ← day_count
    OUTPUT "day", day
    Temperatures()

OUTPUT "the elements in the array at midday are", daytemp
OUTPUT "the elements in the array at midnight are", nighttemp

// finding the total and average temperatures

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FOR count = 1 TO 30
    middayTotal ← middayTotal+ daytemp[count]
    midnightTotal ← midnightTotal+ nighttemp[count]
    count ← count+1

    averageDay ← middayTotal/count
    averageNight ← midnightTotal/count

ENDFOR

// finding the highest value at midday and the lowest value at midnight

FOR count = 1 TO 30
    IF daytemp[count] > highest_mid_temp

        THEN
            highest_mid_temp ← daytemp[count]

            count ← count+1
            highday ← count

FOR count = 1 TO 30
    IF nighttemp[count] < lowest_night_temp

        THEN
            lowest_night_temp ← nighttemp[count]

            count ← count+1
            lownight ← count

        ENDIF
ENDFOR

// output of the results
OUTPUT "the sum of the elements in the array at midday are", middayTotal
OUTPUT "the sum of the elements in the array at midnight are", midnightTotal
OUTPUT "the average of the elements in the array at midday is:", averageDay
OUTPUT "the average of the elements in the array at midnight is:", averageNight
OUTPUT "highest midday value is", highest_mid_temp
OUTPUT "lowest midnight value is", lowest_night_temp
OUTPUT "the highest midday value was on day", highday
OUTPUT "the lowest midnight value was on day", lownight

END

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