PSEUDOCODIGO

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FUNCTION check_correct_data(package data)
    IF data.steps > 0  and   data.seconds > 0
        RETURN true
    ELSE
        RETURN false
END FUNCTION

FUNCTION check_correct_time(long seconds)
    IF storage_data is empty
        RETURN true
    ELSE
        anterior = last package of storage_data
        RETURN seconds > anterior.seconds //true
END FUNCTION

FUNCTION get_step_day(int steps)
    IF storage_data.size == 1
        RETURN steps
    ELSE
        total_steps = 0
        RANGE BASED FOR sum_steps : storage_data
            total_steps += sum_steps.steps
    RETURN total_steps
END FUNCTION

FUNCTION get_distance(int steps)
    RETURN (steps * STEP_M) / 1000
END FUNCTION
```

```
FUNCTION get_calories_burned(double dist, times current_time)
    RETURN (K_1 * WEIGHT + (((dist / current_time.hour) * (dist / current_time.hour)) / HEIGHT) * K_2 * WEIGHT) * current_time.min
END FUNCTION

FUNCTION get_time_hms(long seconds)
    conversion = times
    conversion.hour = seconds / 3600
    conversion.min = seconds / 60
    conversion.sec = seconds
    RETURN conversion
END FUNCTION

FUNCTION format_time(long seconds, times result)
    show_time = add_zero(result.hour) + ":" + add_zero(result.min) + ":" + add_zero(result.sec)
    RETURN show_time
END FUNCTION

FUNCTION get_format_time(long seconds)
    result = times
    result.hour = seconds / 3600
    result.min = (seconds % 3600) / 60
    result.sec = (seconds % 3600) % 60
    RETURN result
END FUNCTION

FUNCTION add_zero(int time)
    IF time < 10
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        RETURN "0" + to_string(time)
    ELSE
        RETURN to_string(time)
END FUNCTION

FUNCTION get_achievement(double dist)
    IF dist < 2
        RETURN "Está bien tomarse el día de descanso. No siempre se puede ganar."
    ELSE IF dist >= 2 and dist < 3.9
        RETURN "Menos que el resultado deseado, ¡pero intenta alcanzarlo mañana!"
    ELSE IF dist >= 3.9 and  dist < 6.5
        RETURN "¡Nada mal! Hoy ha sido un día productivo."
    ELSE
        RETURN "¡Gran entrenamiento! Objetivo cumplido."
END FUNCTION

FUNCTION show_message(string time, int total_steps, double dist, double calories,
string achievement)
    OUTPUT "Time: " + time + "."
    OUTPUT "Total steps today: " + convert_to_string(total_steps) + "."
    OUTPUT "The distance was " + convert_to_string(dist) + " km."
    OUTPUT "You burned " + convert_to_string(calories) + " cal."
    OUTPUT achievement
END FUNCTION

FUNCTION accept_package(package data)
    IF check_correct_data(data) != true
        RETURN storage_data
    IF check_correct_time(data.seconds) != true
        RETURN storage_data
```

```
    storage_data.push_back(data)

    result = get_format_time(data.seconds)
    time = format_time(data.seconds, result)
    total_steps = get_step_day(data.steps)
    dist = get_distance(total_steps)
    current_time = get_time_hms(data.seconds)
    calories = get_calories_burned(dist, current_time)
    achievement = get_achievement(dist)
    show_message(time, total_steps, dist, calories, achievement)
    RETURN storage_data
END FUNCTION
```