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Design Document: Mountain Paths, Part 1

Pseudocode – Step 1: Read the data from file into a 2d vector.

Declare main vector as 1d array
Declare colors vector with rows and columns

get inputs for rows, columns, and filename

create stream for input file

Open input file

if(input file isn't open)
    throw error
close if

for loop(iterate from 0 to the total amount of rows input)
    insert datapoint (I) from file to vector
end for loop

loop to split the main vector into the specified amount of rows and columns

declare variables for min and max

for(iterate from 0 to amount of rows)
    for(iterate from 0 amount for columns)
        if(element I is greater than max){max = element I}
        if(element I is less than min){max = element i}
    end for
end for

for(iterate from 0 to amount of rows)
    for(iterate from 0 amount for columns)
        set element (i)(j) of color vector to ((value of main vector(i)(j) – min) / (max – value of main vector(i)(j)) * 255)
    end for
end for

create 3 parallel vectors for the RGB values

create output stream

open new output file

using proper ppm format, output the 3 parallel vectors to the file in appropriate array format