

3.2.a

Open input and output files.

Initialize variables for storing data and tracking valid entries.

Loop through each line in the input file:

- Split the line by commas and store in an array.
- Loop through the first 3 elements:
 - If any element is not a valid double:
 - Log the invalid entry to the error file.
 - Mark the entry as invalid and decrement the count.
 - If all elements are valid:
 - Convert each to double and accumulate for x , y , and z .
- Increment count of valid entries.

Calculate the center of mass using accumulated x , y , z and $count$.

If there are valid entries:

- Print and write the center of mass and the count of valid entries to the output file.

print successful completion in the output file.

3.2.b

Line 1: 2.32,1.42, abc ← testing to see if location of invalid double messes up writing to output file summary or error

Line 2: 2.32,abc,abc ← checking how it handles multiple error

Line 3: 0.0,0.0,0.0 ← checking how it deals with code where valid doubles are all zero