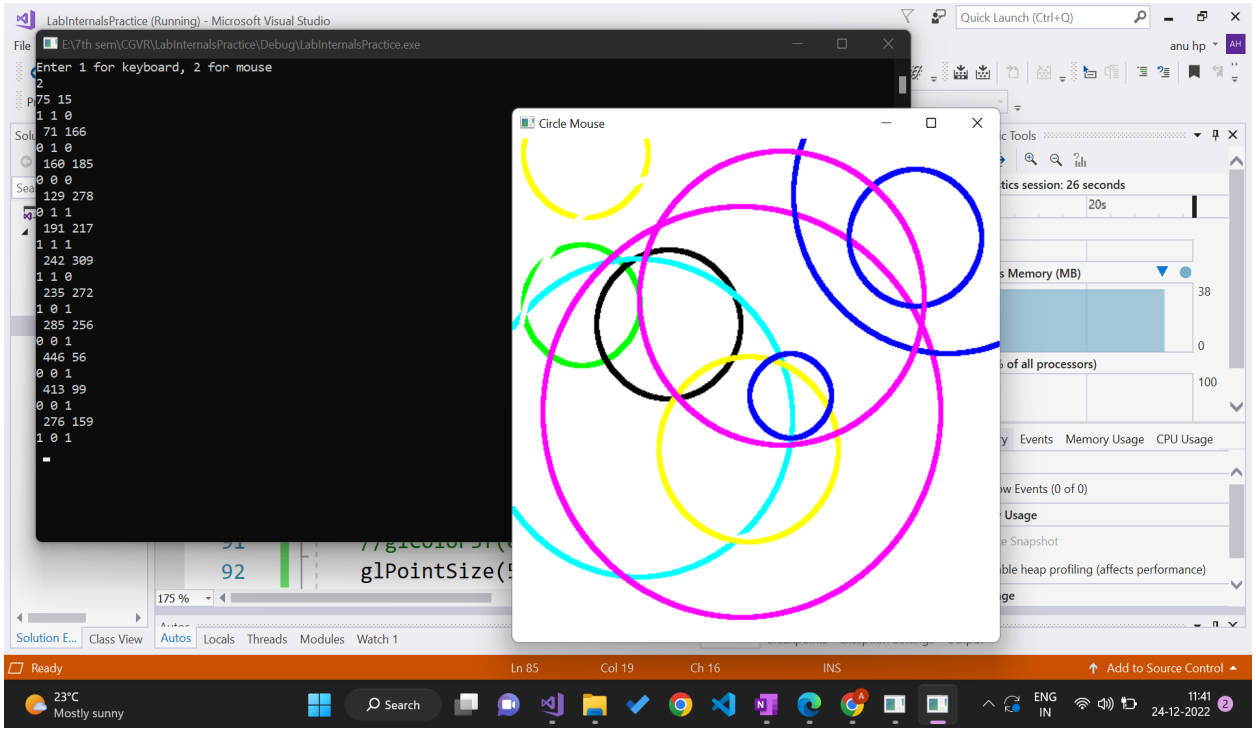
Outputs 🎉

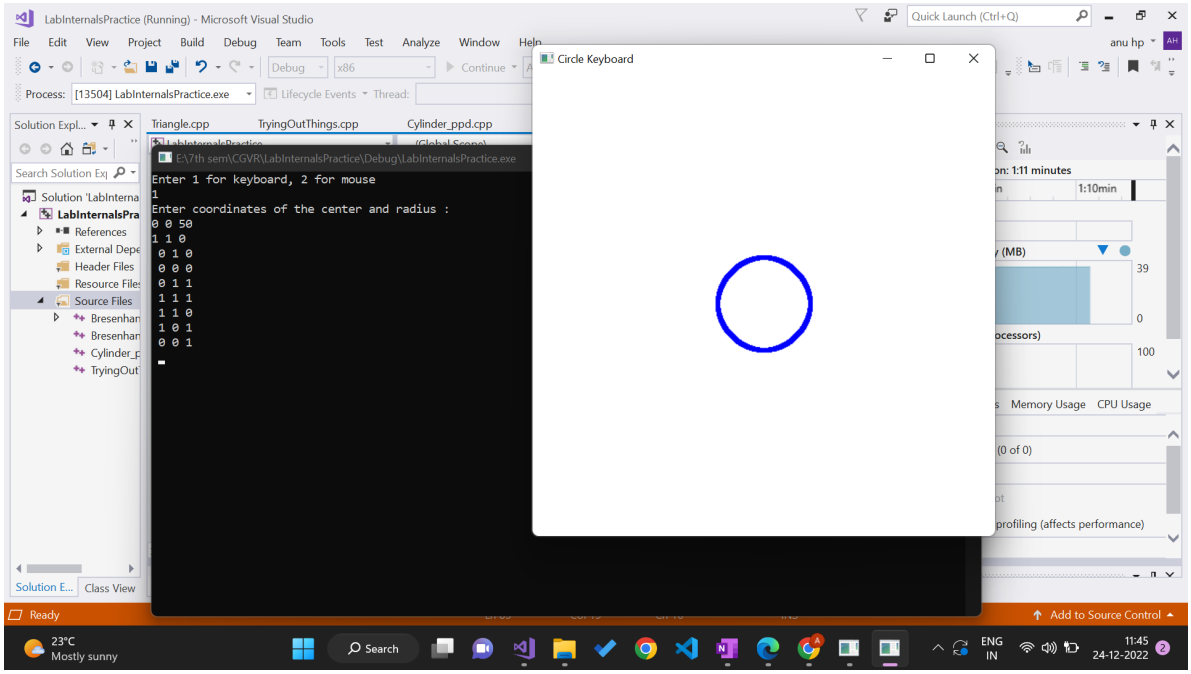
1. Bresenham Circle Drawing

1. Mouse 🖱️ inputs

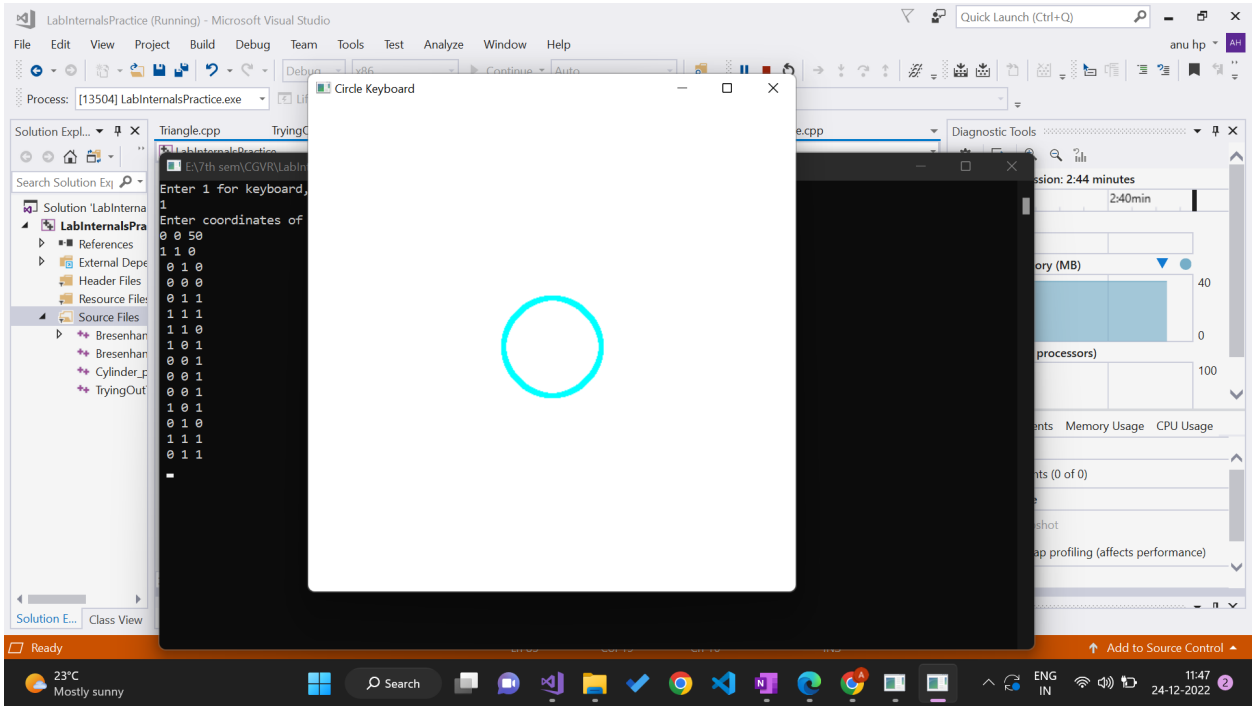
First click - for center of the circle , second - for radius



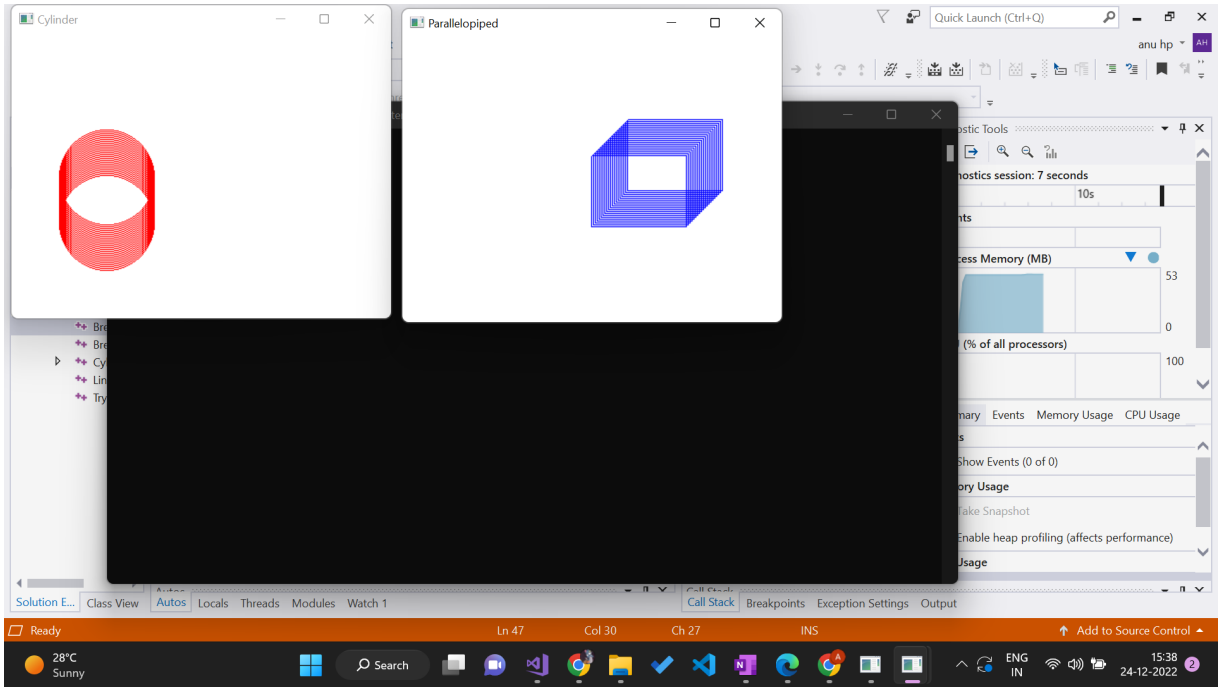
2. Keyboard ⌨️inputs



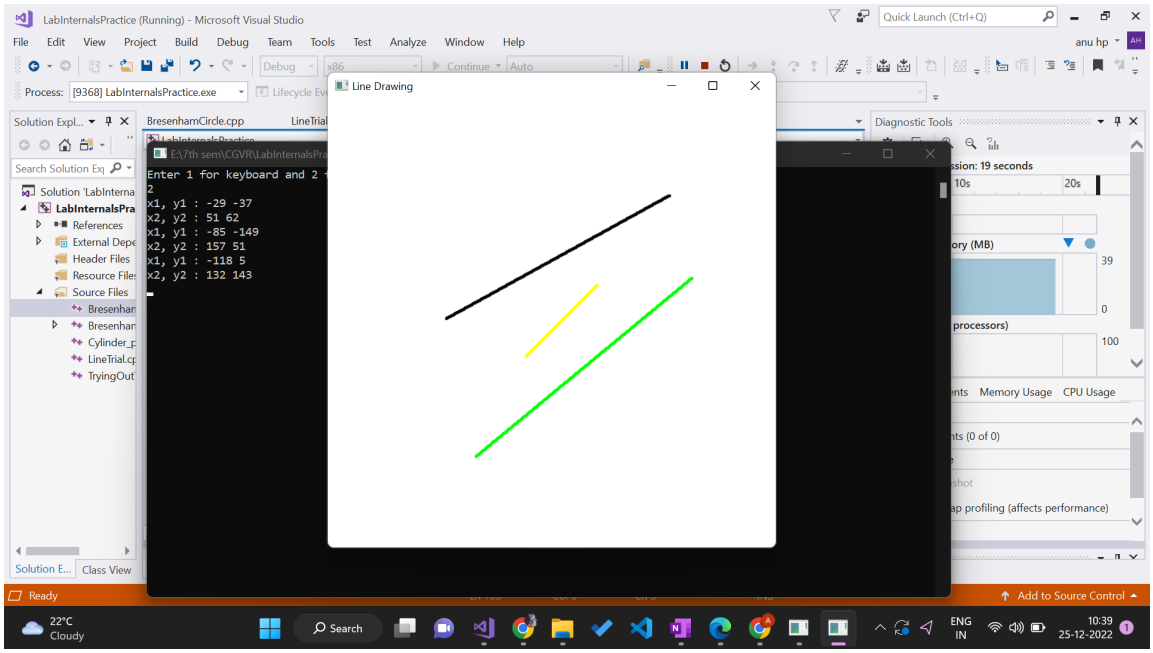
I really don't know what is happening, as I kept moving this output window, color kept changing



2. Cylinder Parallelepiped



3. Bresenham Line Drawing

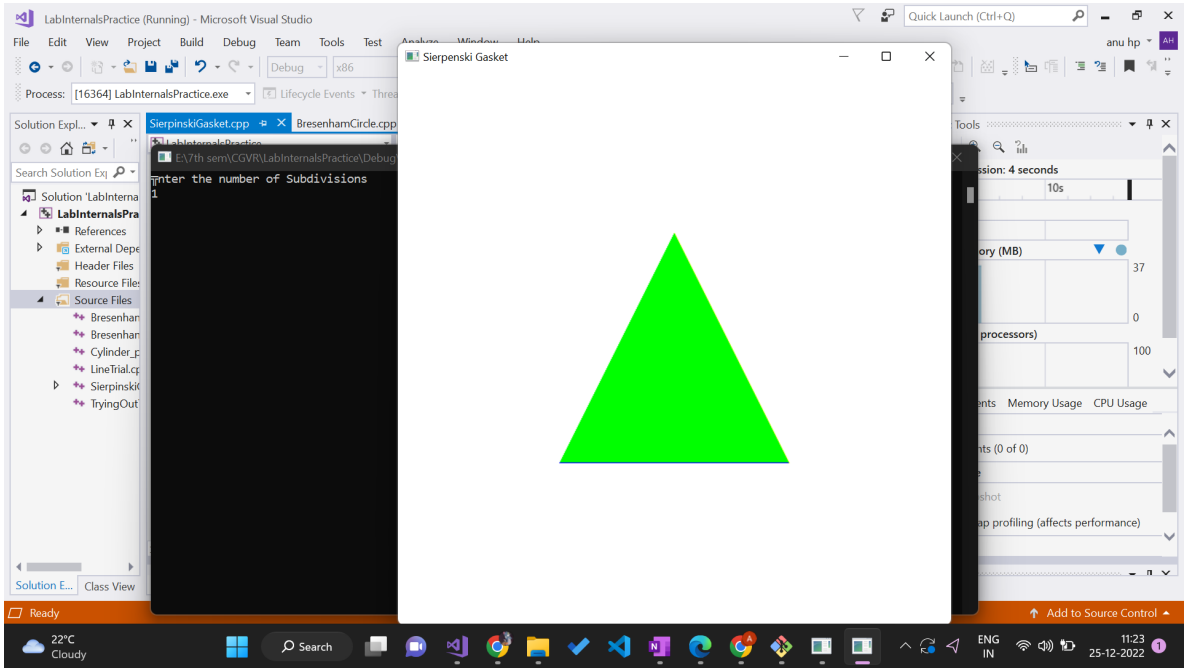


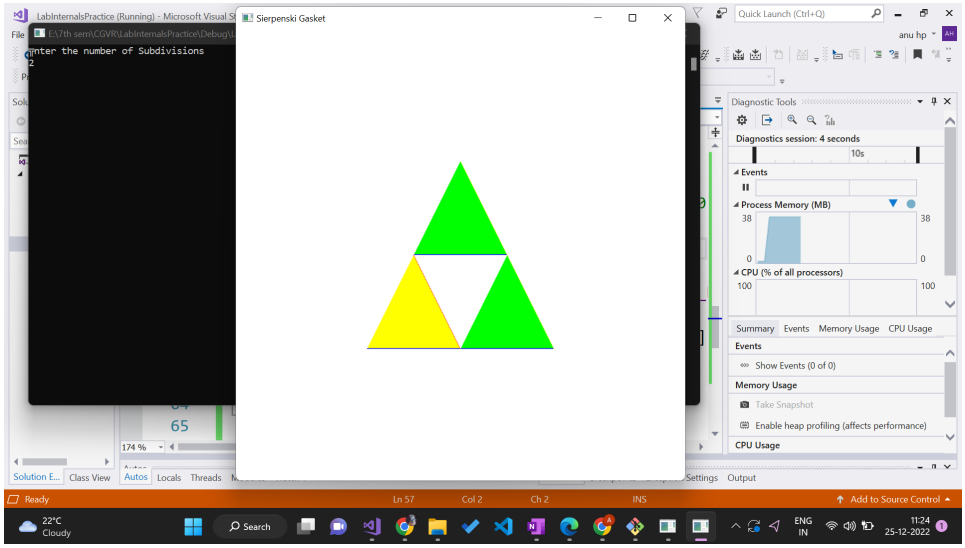
This LINE program is acting like one mad idiot, though I give slant line inputs, it displays horizontal lines and things like that. Sometimes, it won't show any lines at all.
Rebuild and run.

If you could find the error , please create a pull request 🥺

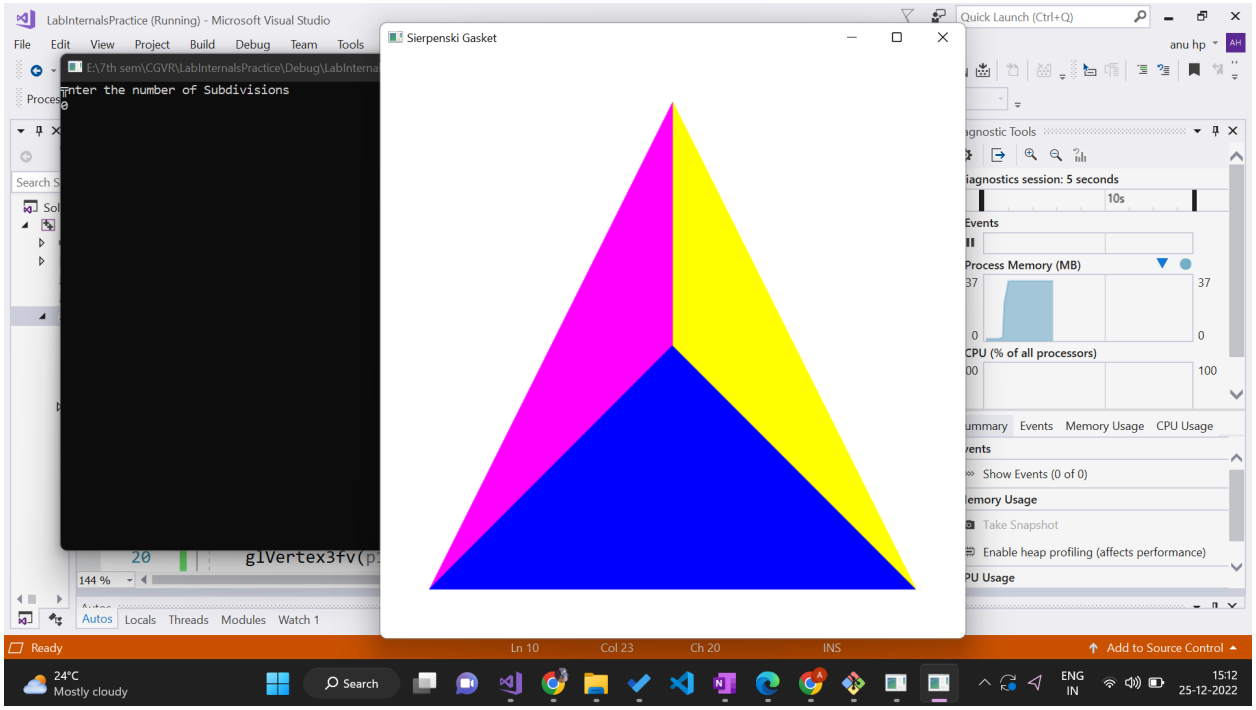
4. Sierpinski Gasket

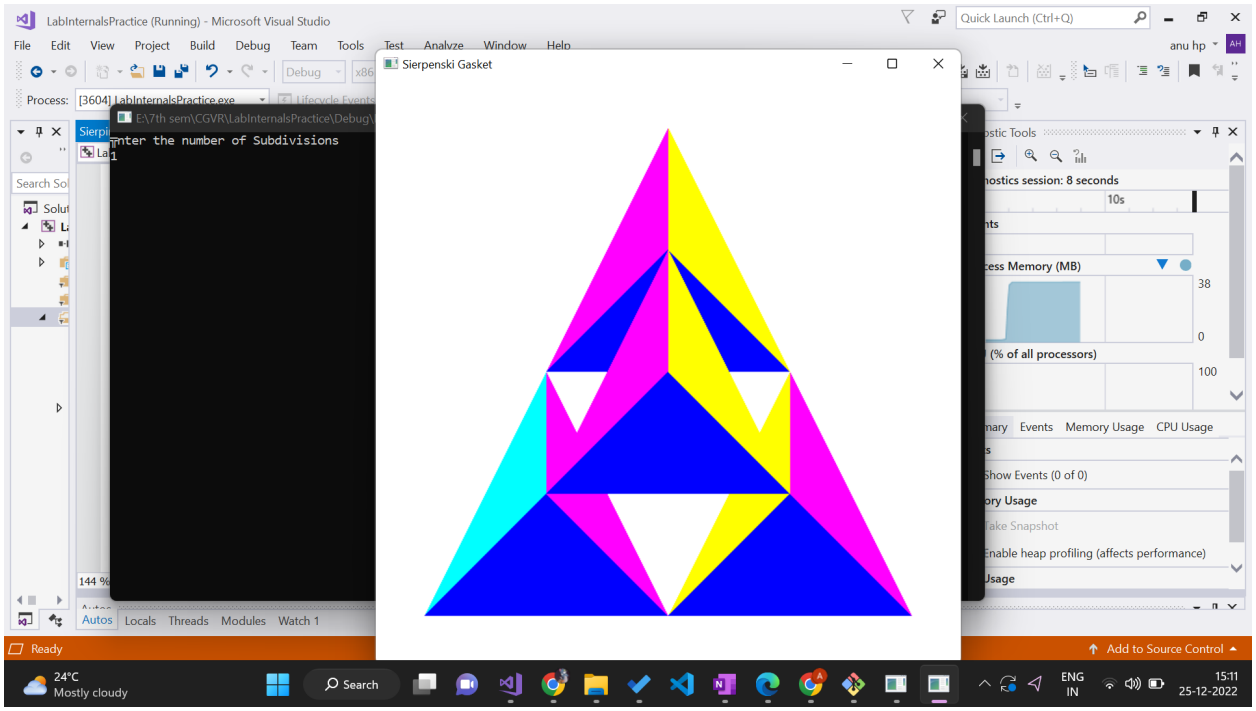
a. Surface subdivision





b. Volume subdivision

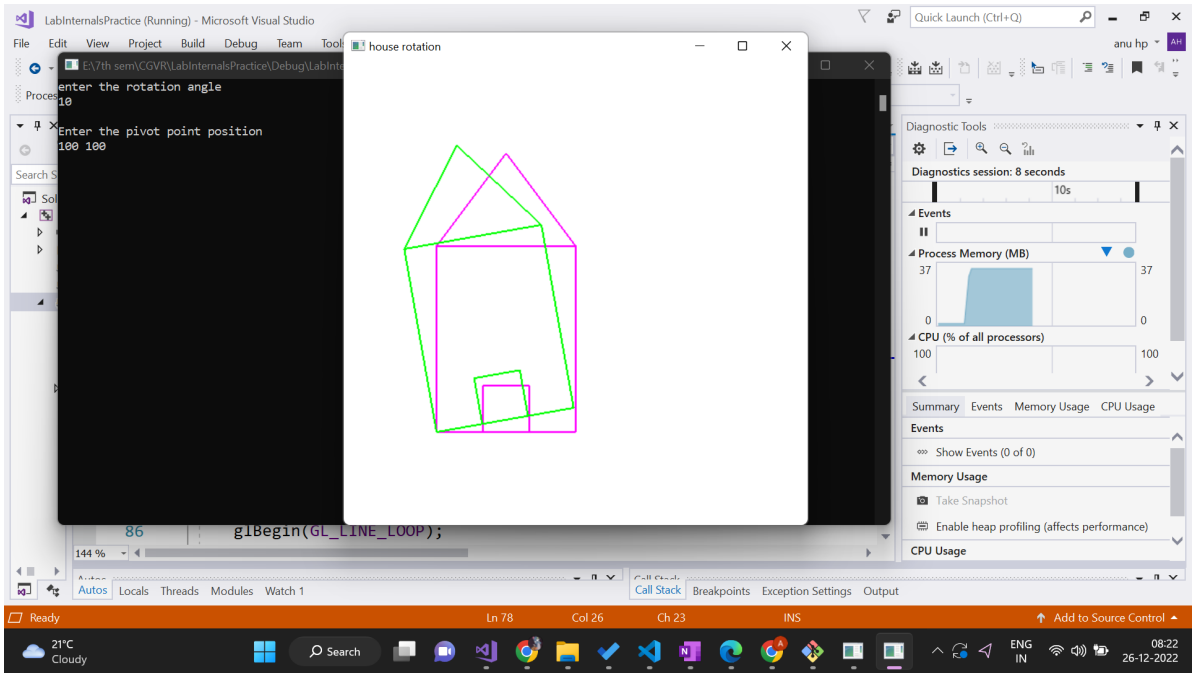




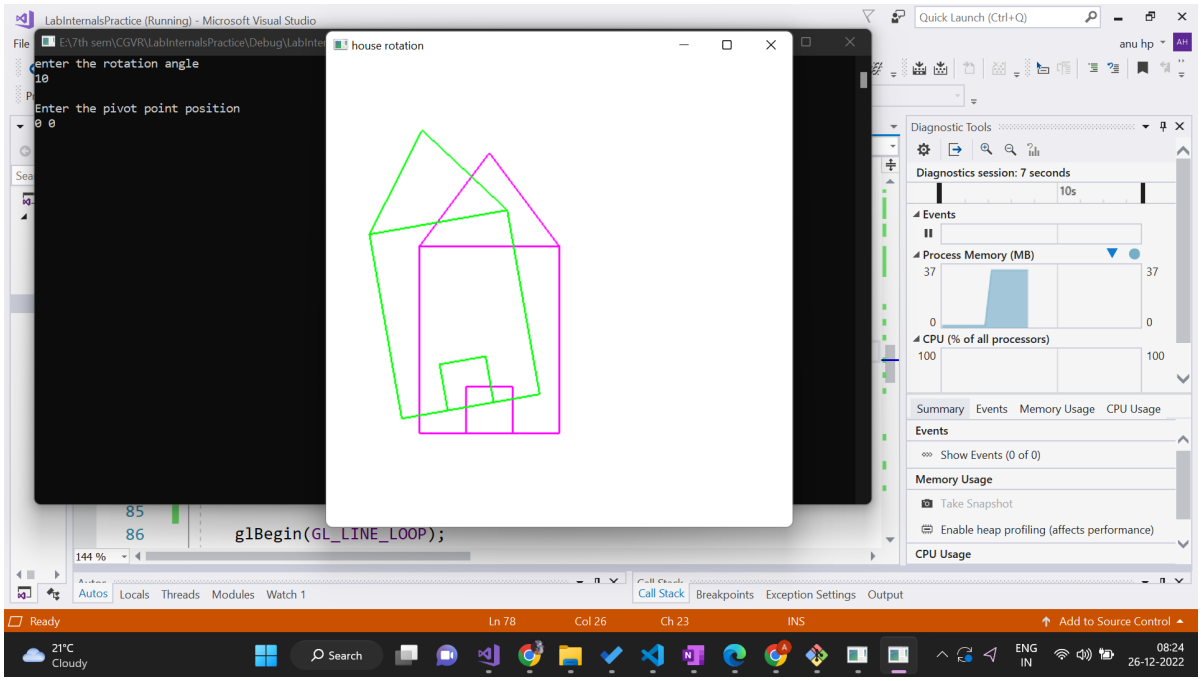
5. House Reflect and Rotate

a. Rotate

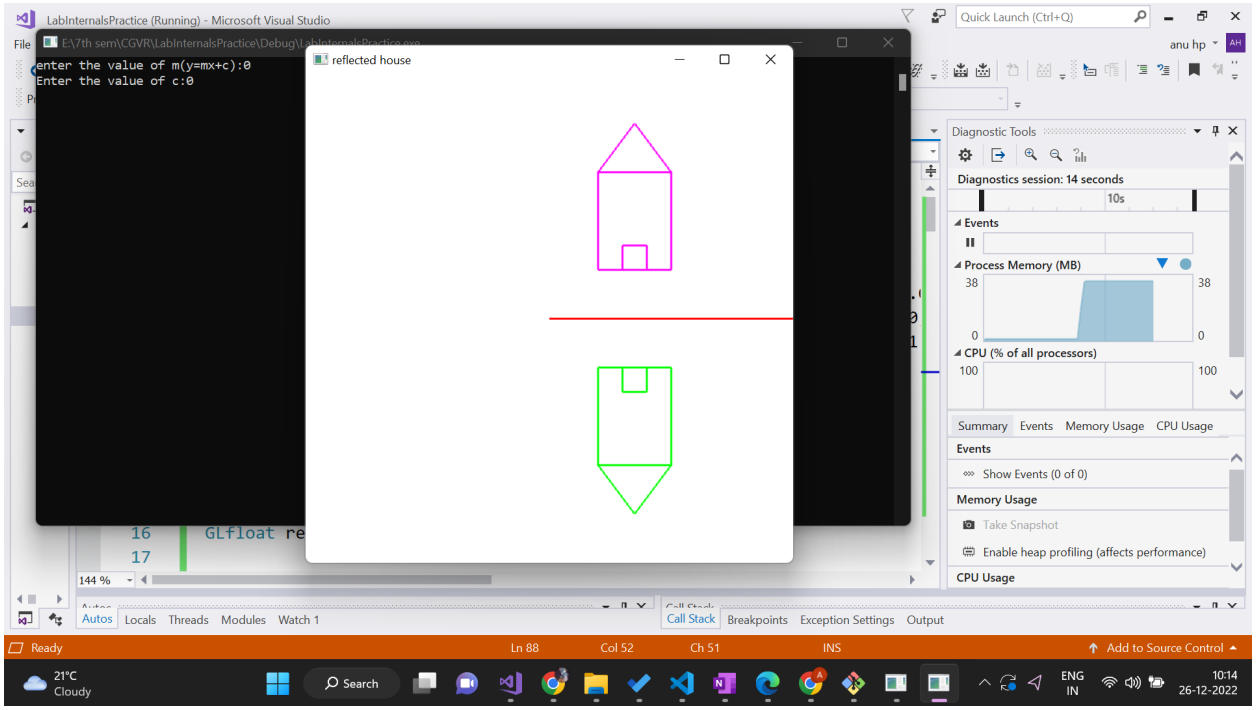
About the left corner point - so new house is not shifted from that point; makes sense

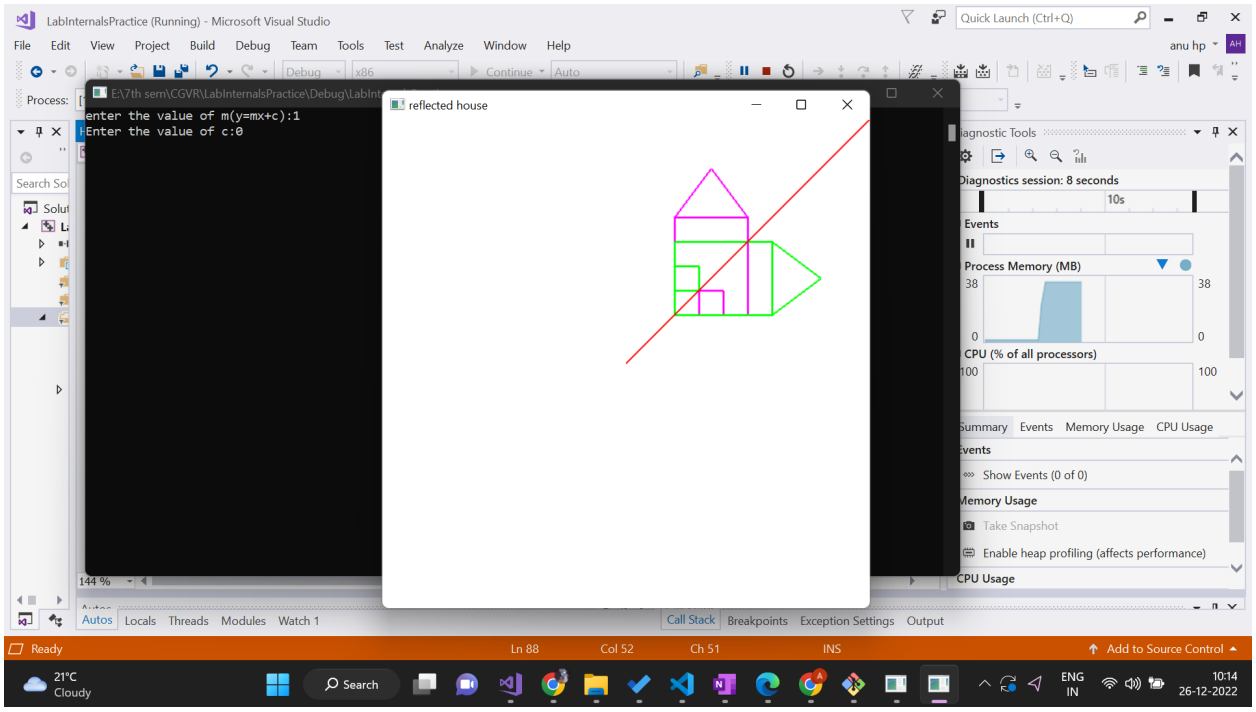


About origin

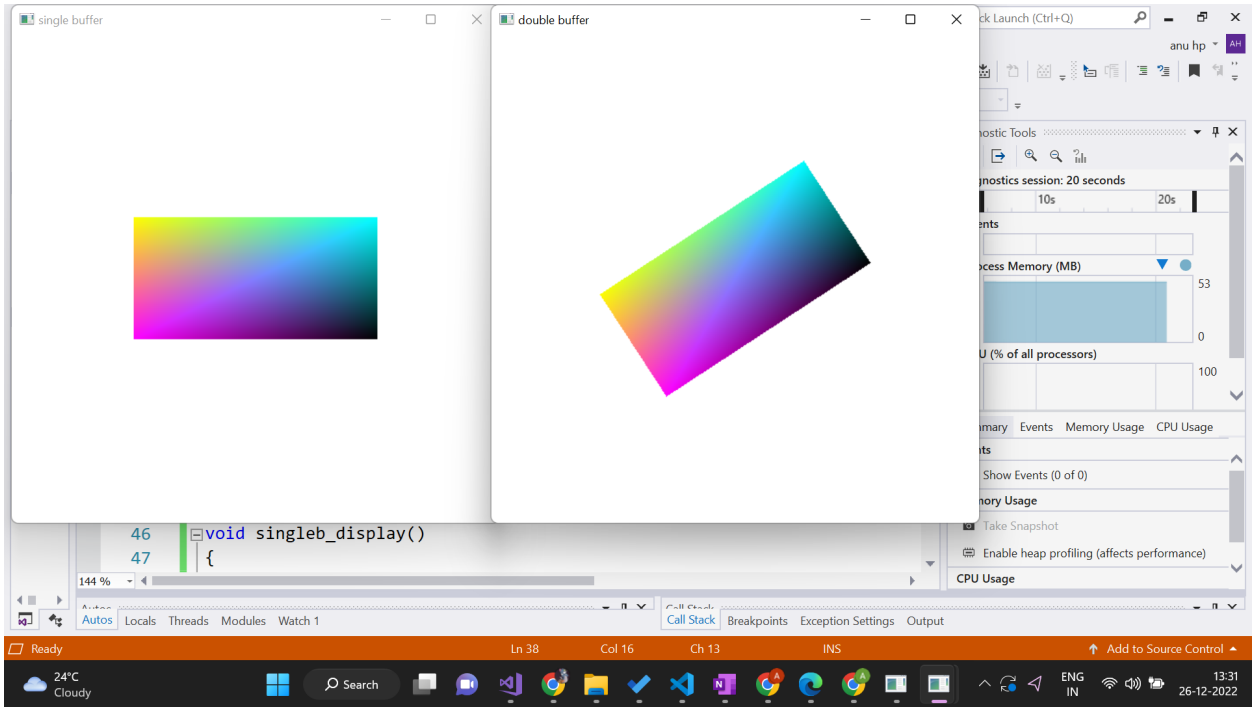


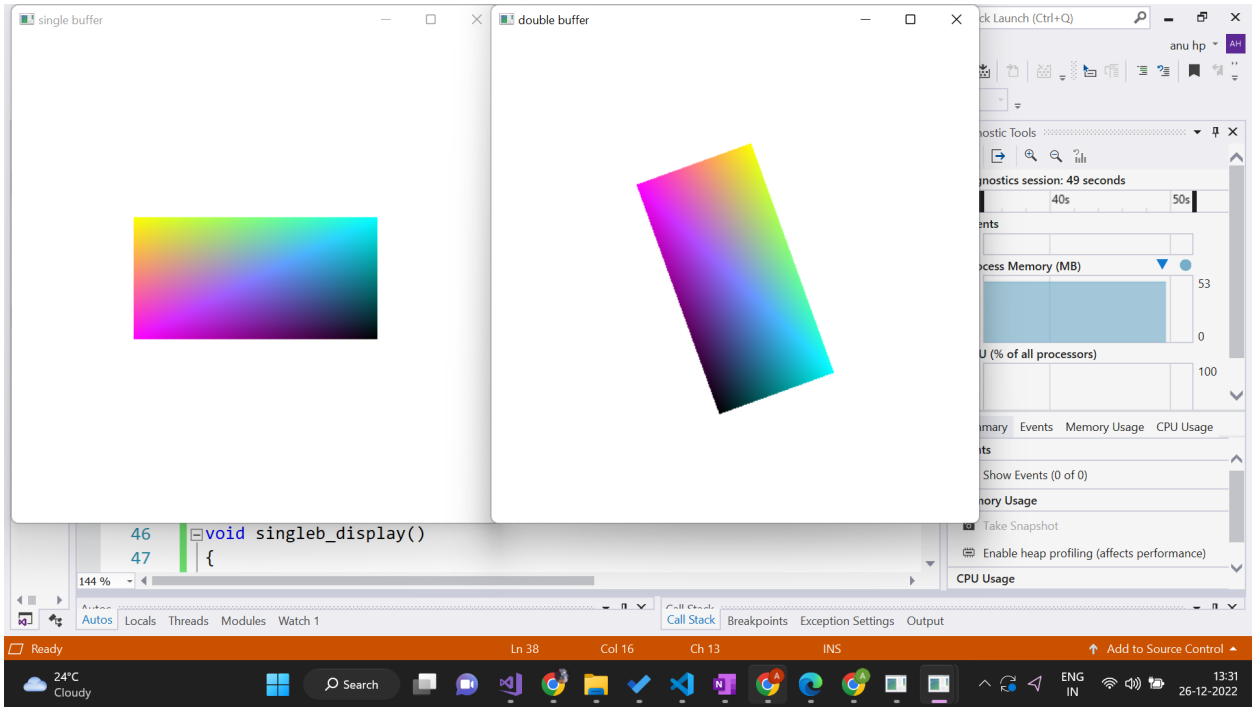
b. Reflect


LabInternalsPractice (Running) - Microsoft Visual Studio
enter the value of m(y=mx+c):0
Enter the value of c:0
reflected house
Diagnostics session: 14 seconds
Events
Process Memory (MB)
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Enable heap profiling (affects performance)
Autos
Locals
Threads
Modules
Watch 1
Call Stack
Breakpoints
Exception Settings
Output
Ready
Ln 88
Col 52
Ch 51
INS
Add to Source Control
21°C
Cloudy
Search
ENG
IN
10:14
26-12-2022


LabInternalsPractice (Running) - Microsoft Visual Studio
enter the value of m(y=mx+c):1
Enter the value of c:0
reflected house
Diagnostics session: 8 seconds
Events
Process Memory (MB)
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Enable heap profiling (affects performance)
Autos
Locals
Threads
Modules
Watch 1
Call Stack
Breakpoints
Exception Settings
Output
Ready
Ln 88
Col 52
Ch 51
INS
Add to Source Control
21°C
Cloudy
Search
ENG
IN
10:14
26-12-2022

6. Rectangle spin

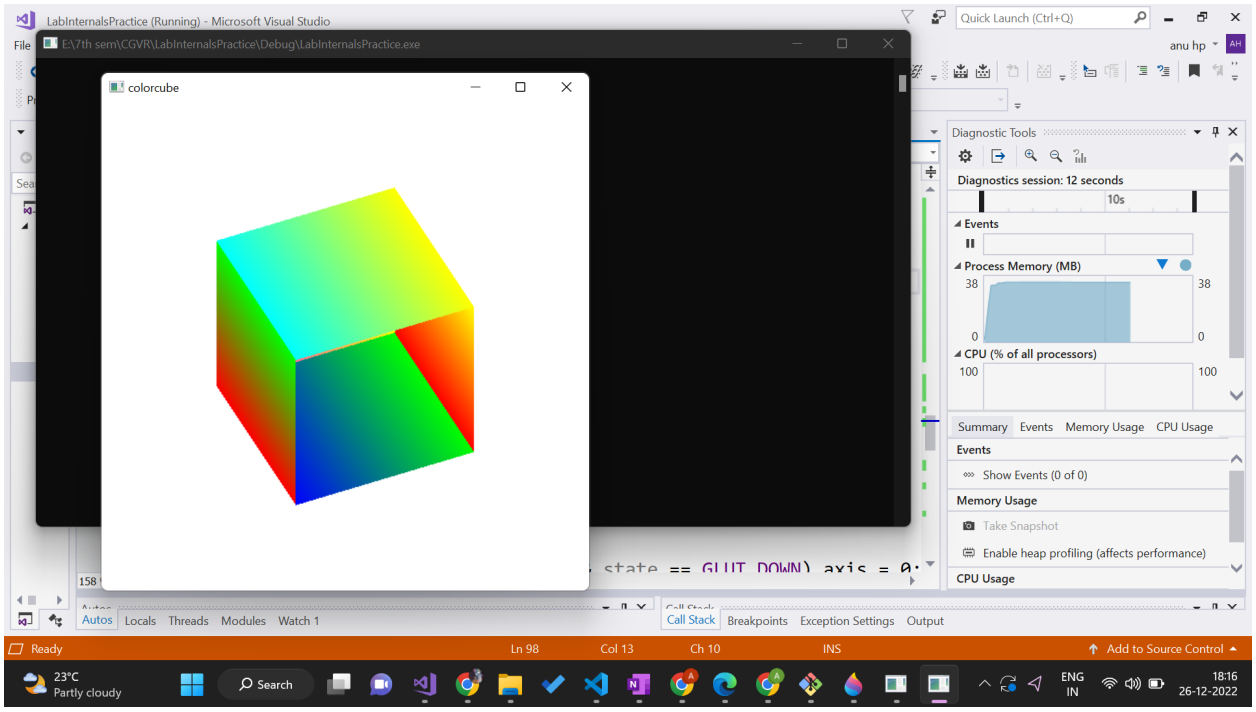




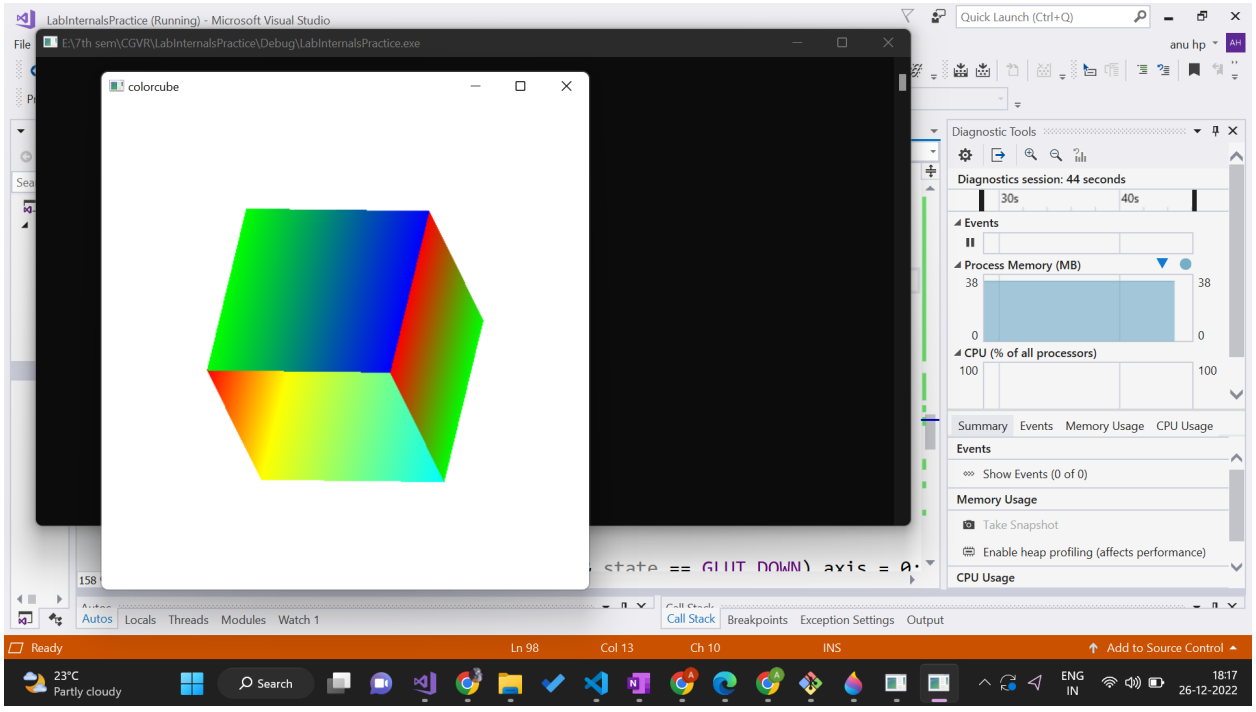
7. Cube spin

- Needs improvement

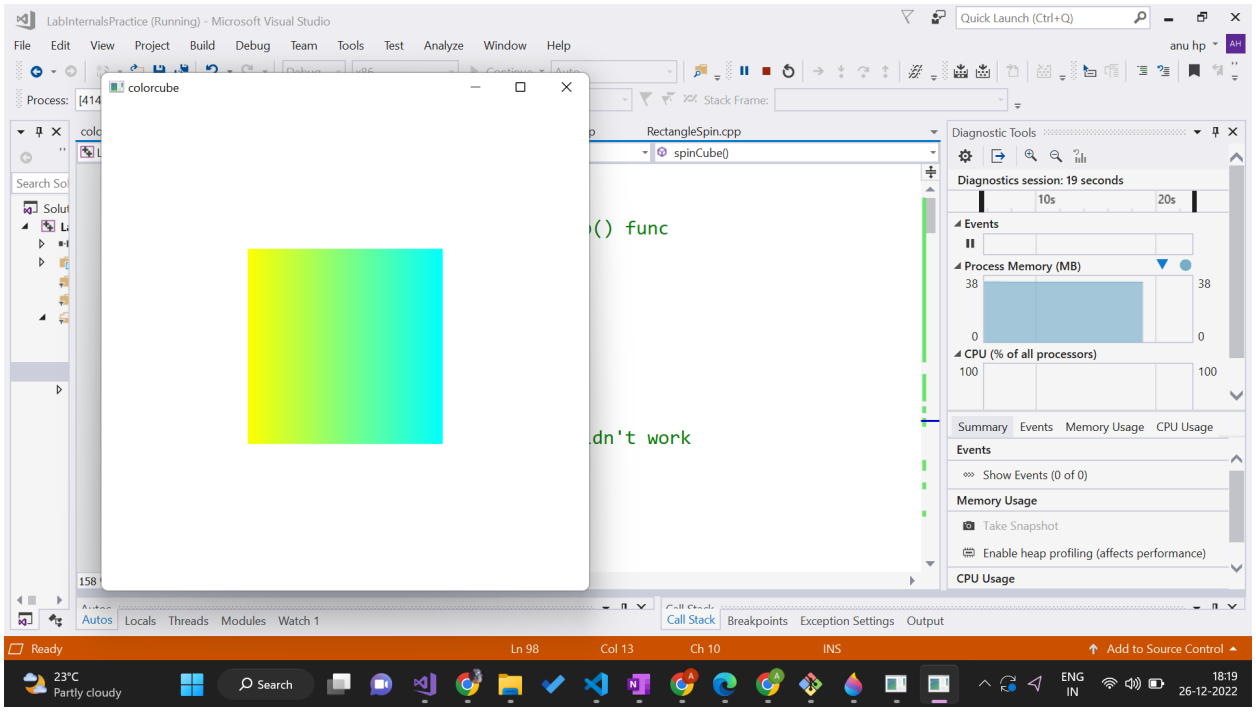
About z axis



About y axis

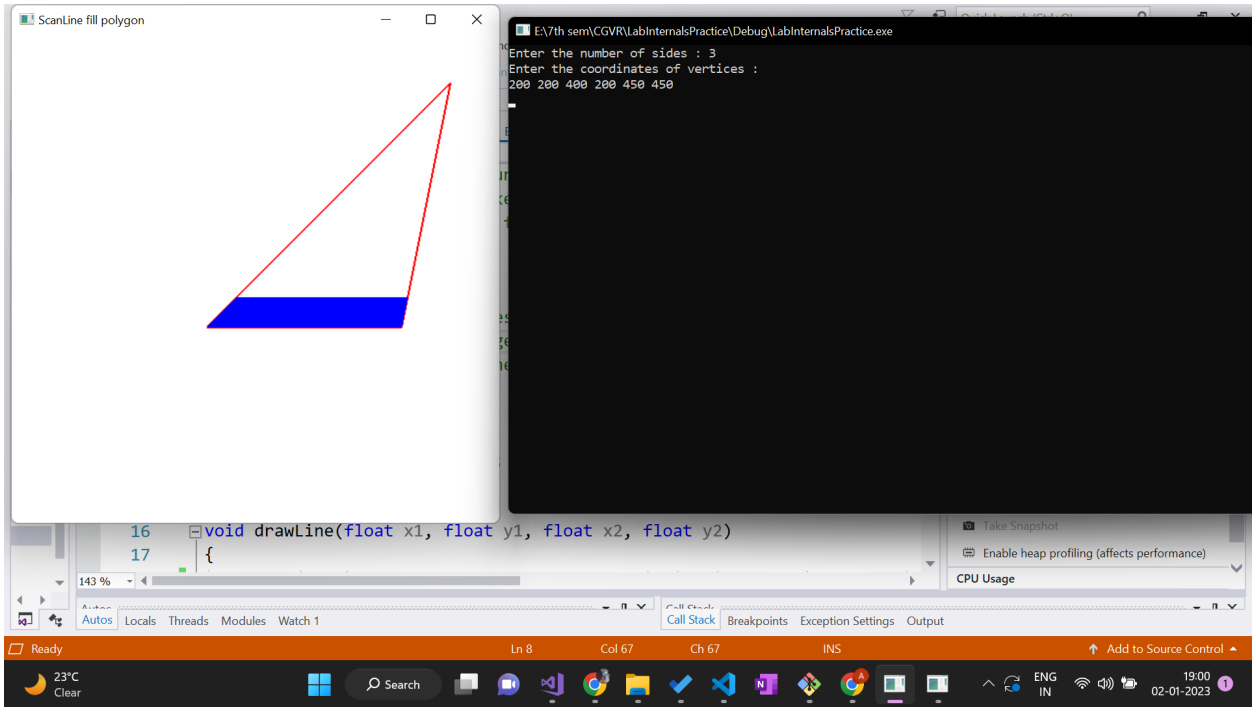


About x axis



Better take rubik’s cube and visualize

8. Scan line Area Filling



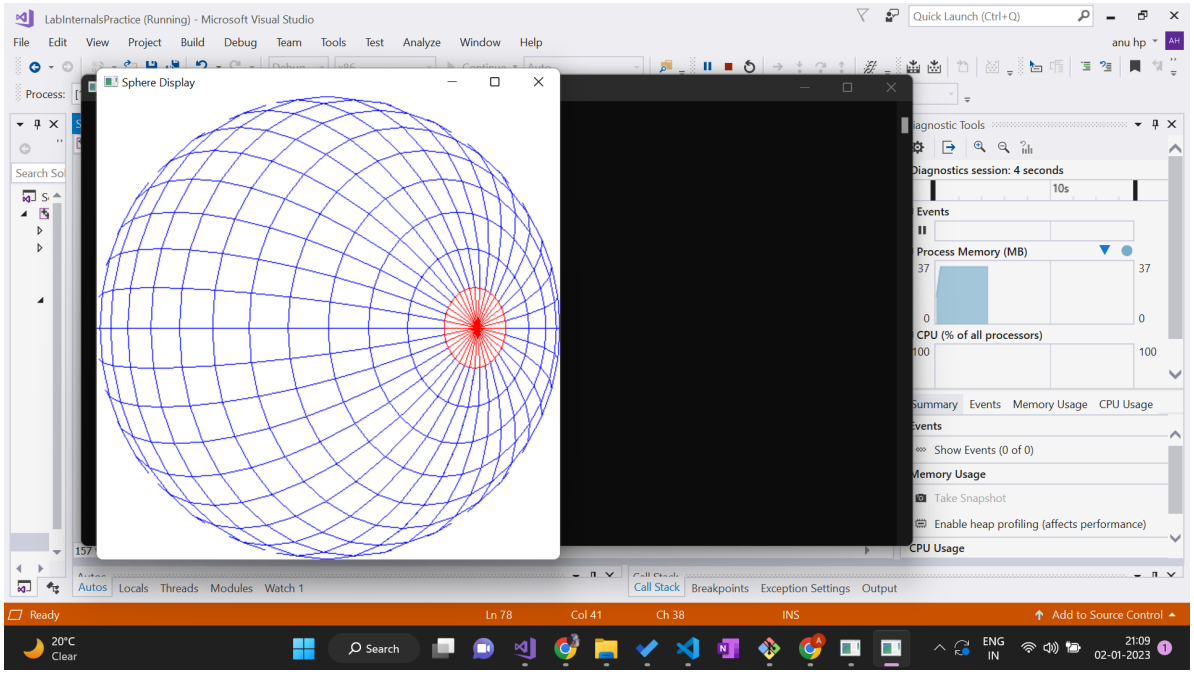
Need to add code to handle special cases (odd number of vertices in the list and so on)

I would appreciate if you can do it and create a pull request 🙂

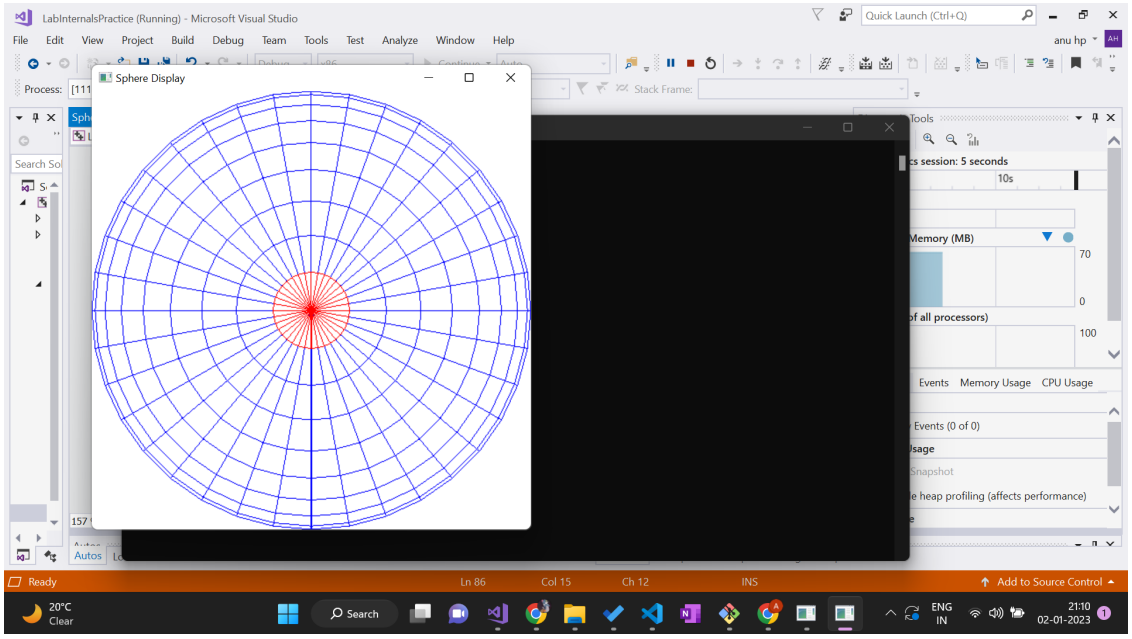
9. Sphere

(Imagine, z axis is perpendicular to the screen)

Rotation angle - 40 about y axis

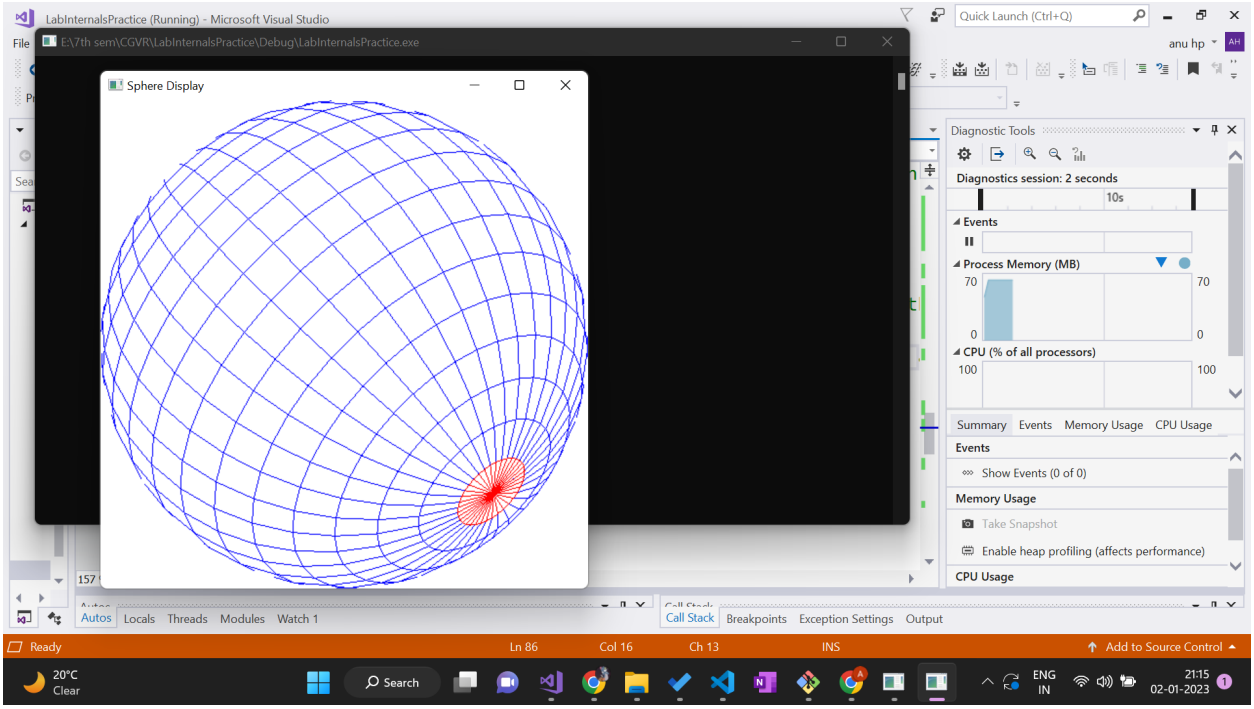


Rotation angle - 0 about y axis



Good, just like you imagined, rotation about z axis - you can't see any changes

Rotation angle - 60 about x and y axis



Some doubts are there , see the code - I have written comments

Again, if you can answer those, create a PR

10.