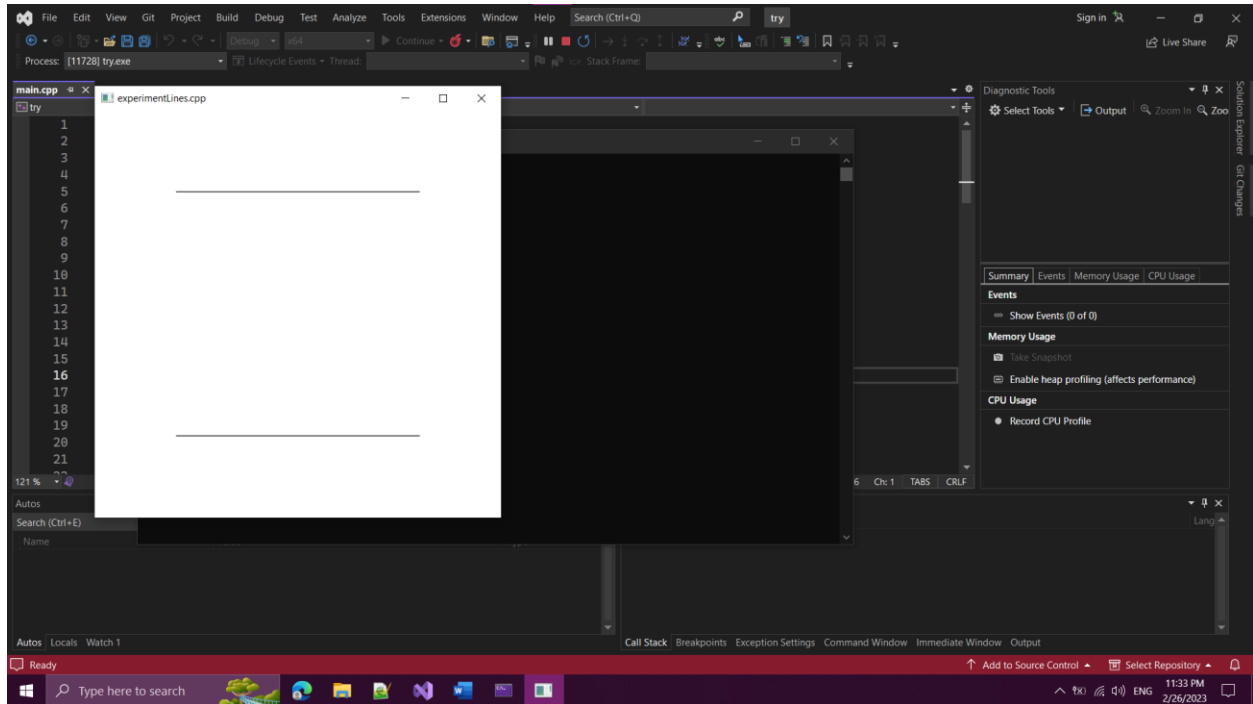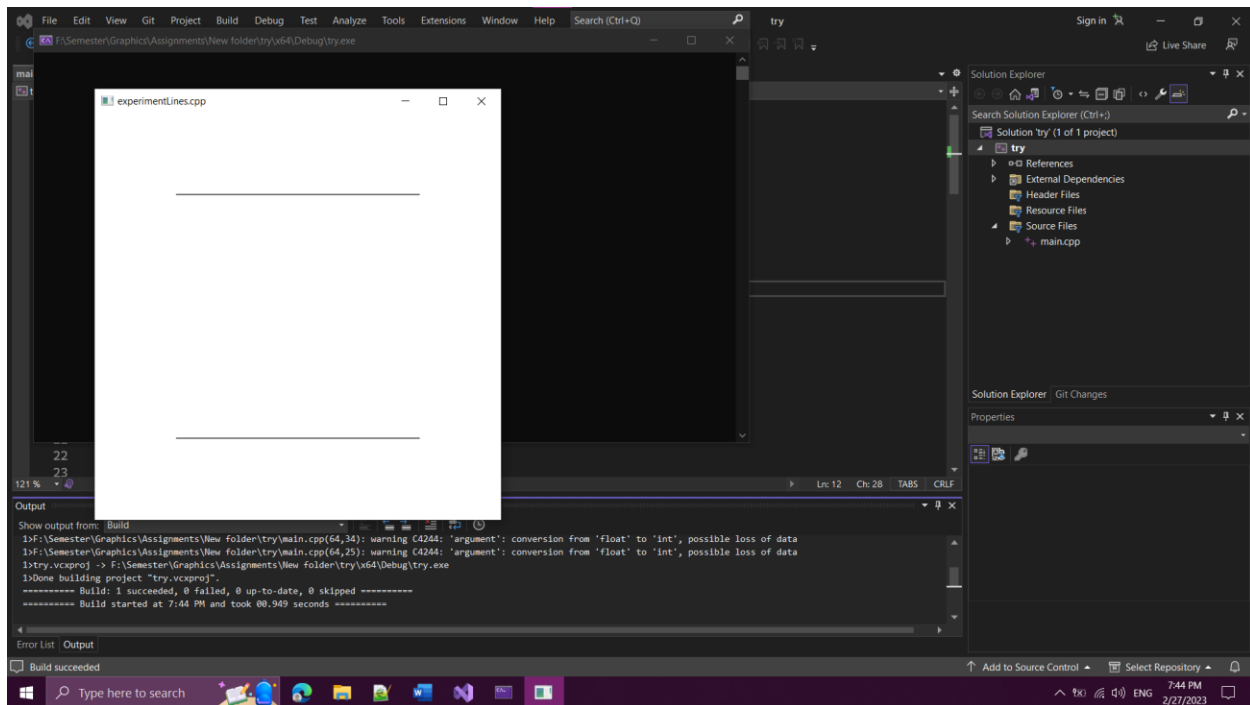| Gamal Abdul Hameed Nasef Newysar | 19015550 |
|---|---|

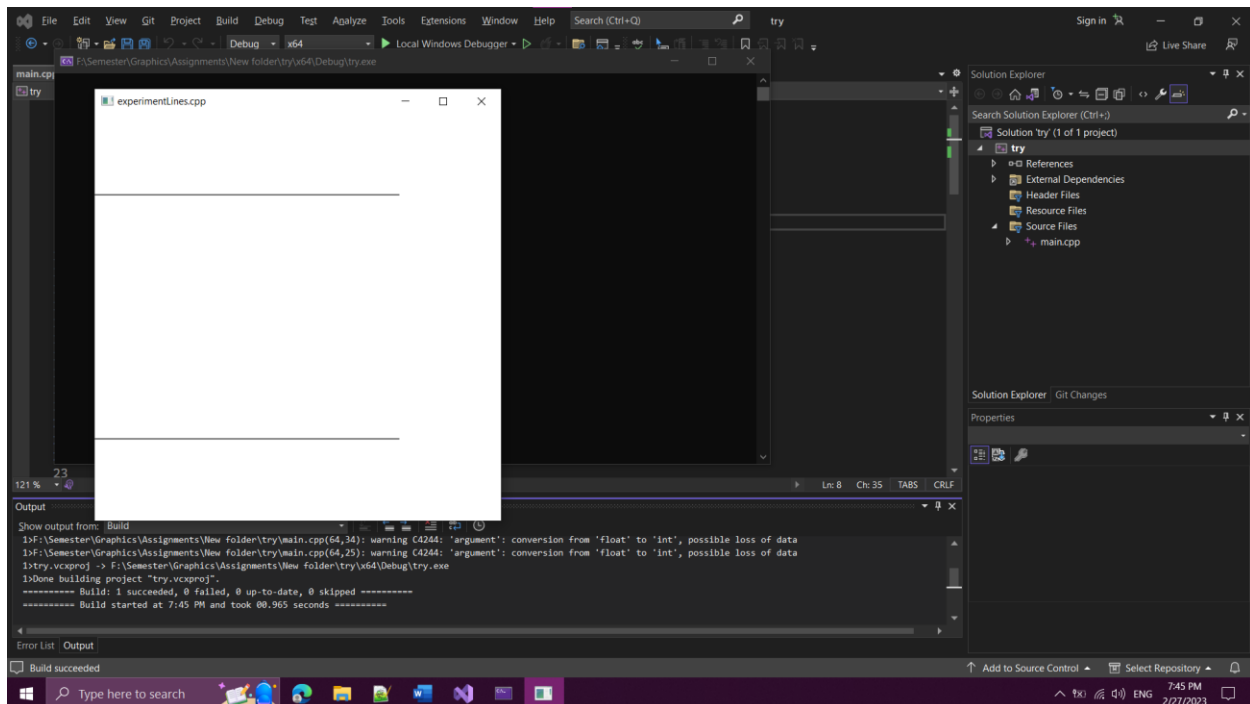## ➢ Original Draw:



## ➢ Variables changes:

- orthoLeft
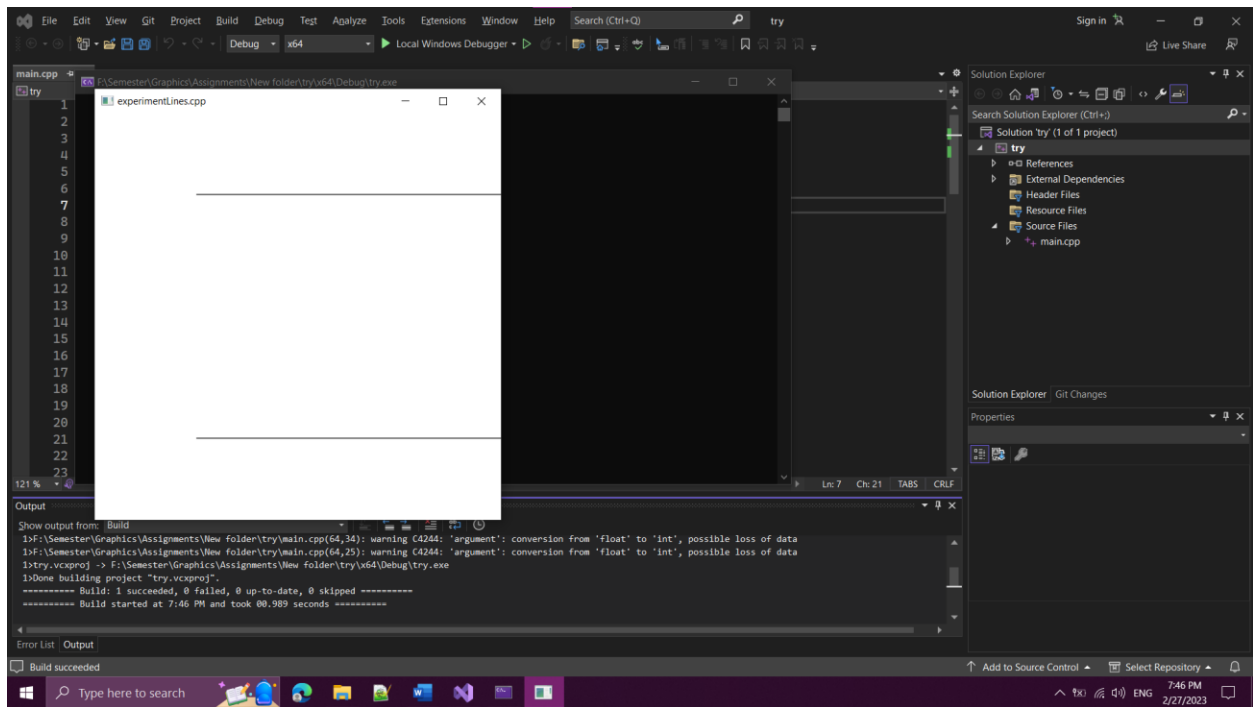  As we increase orthoLeft, the left start of the two lines moves left.
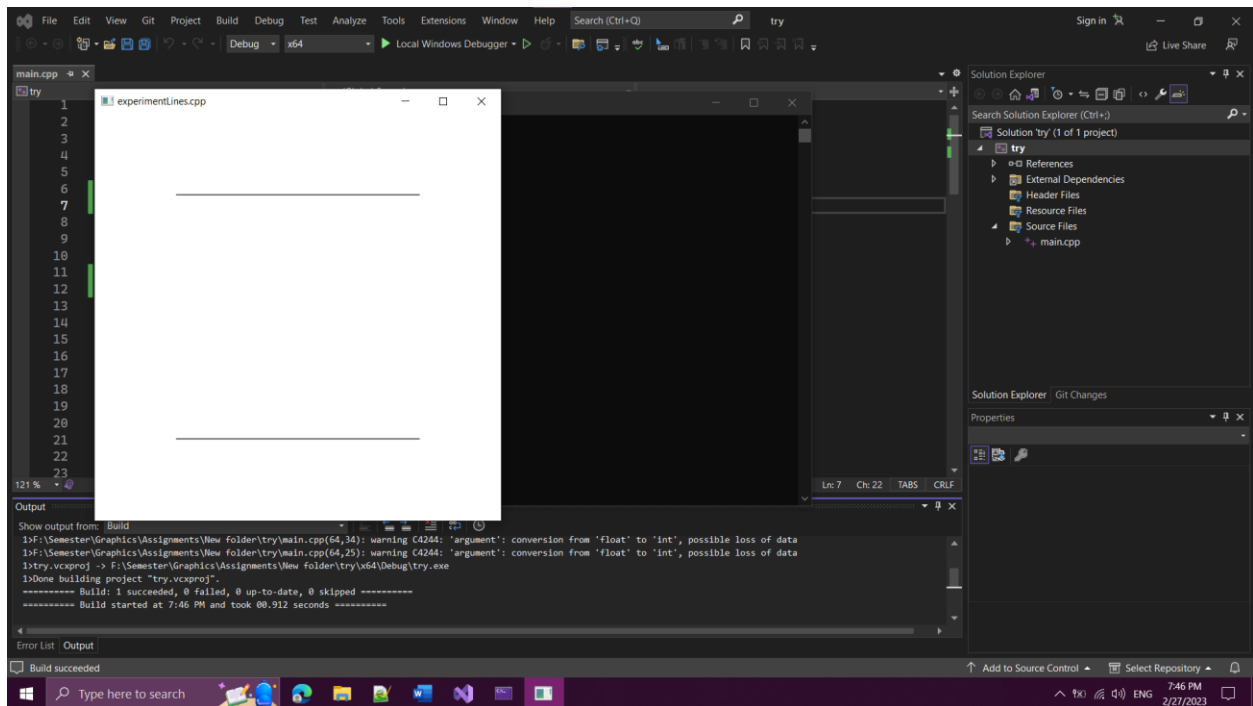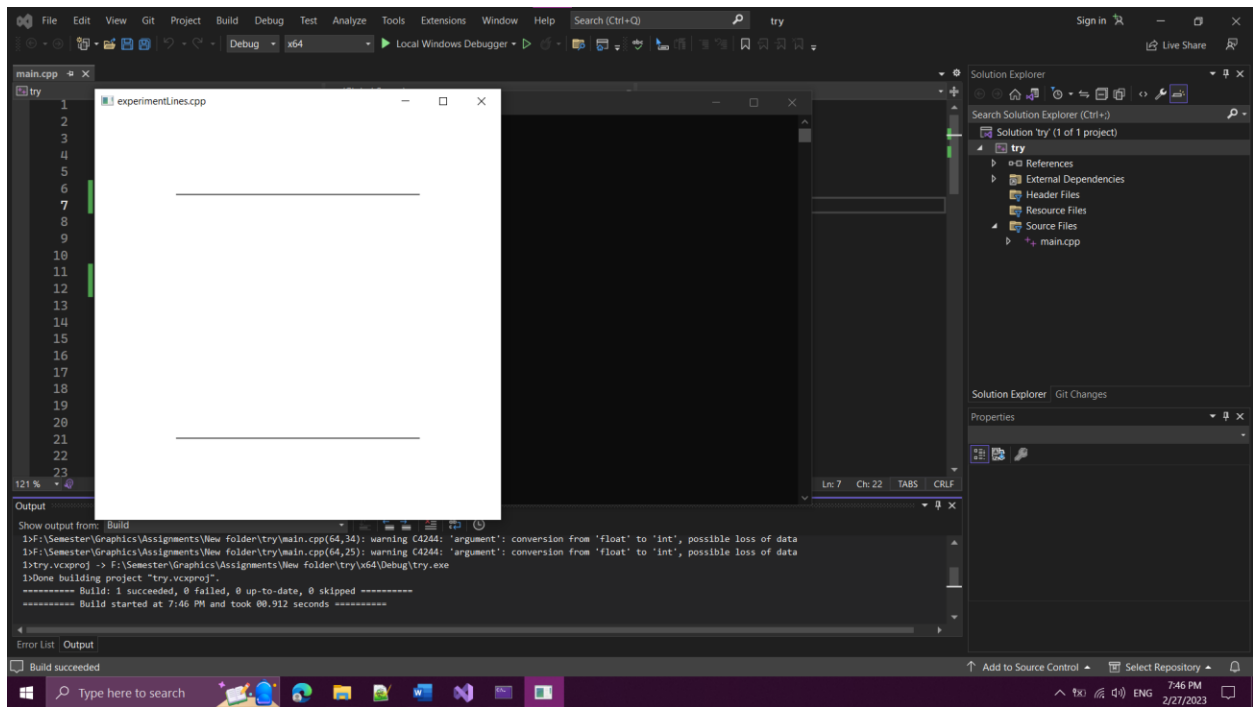  orthoLeft = 0

orthoLeft = 20



- **orthoRight**
  As we increase orthoRight, the right start of the two lines moves left.
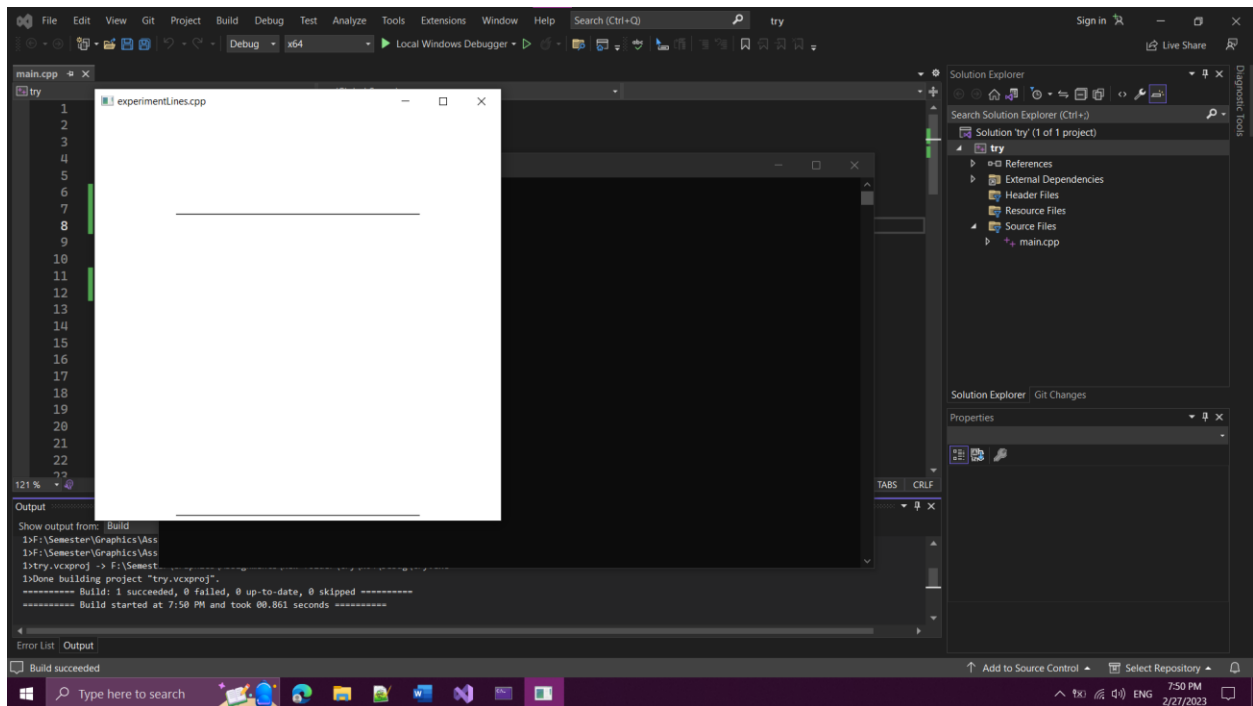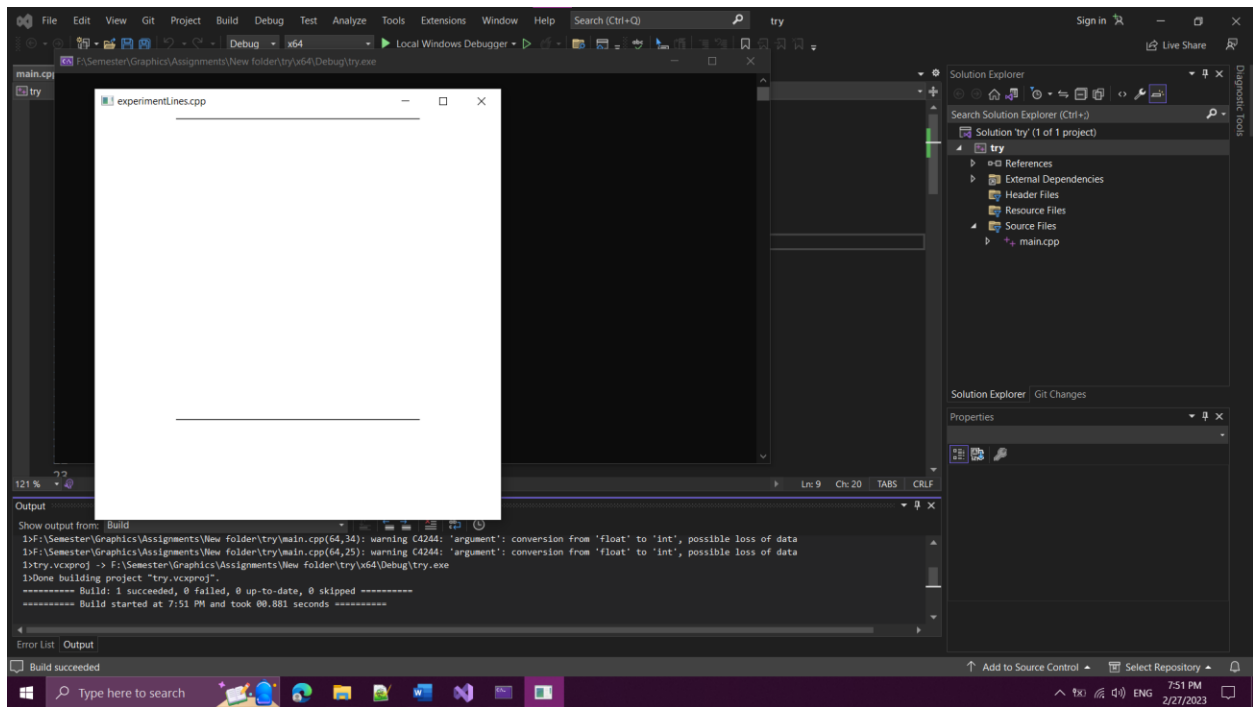  orthoRight = 80

orthoRight = 100



- **orthoBottom**
  As we increase orthoBottom, the two lines move down.
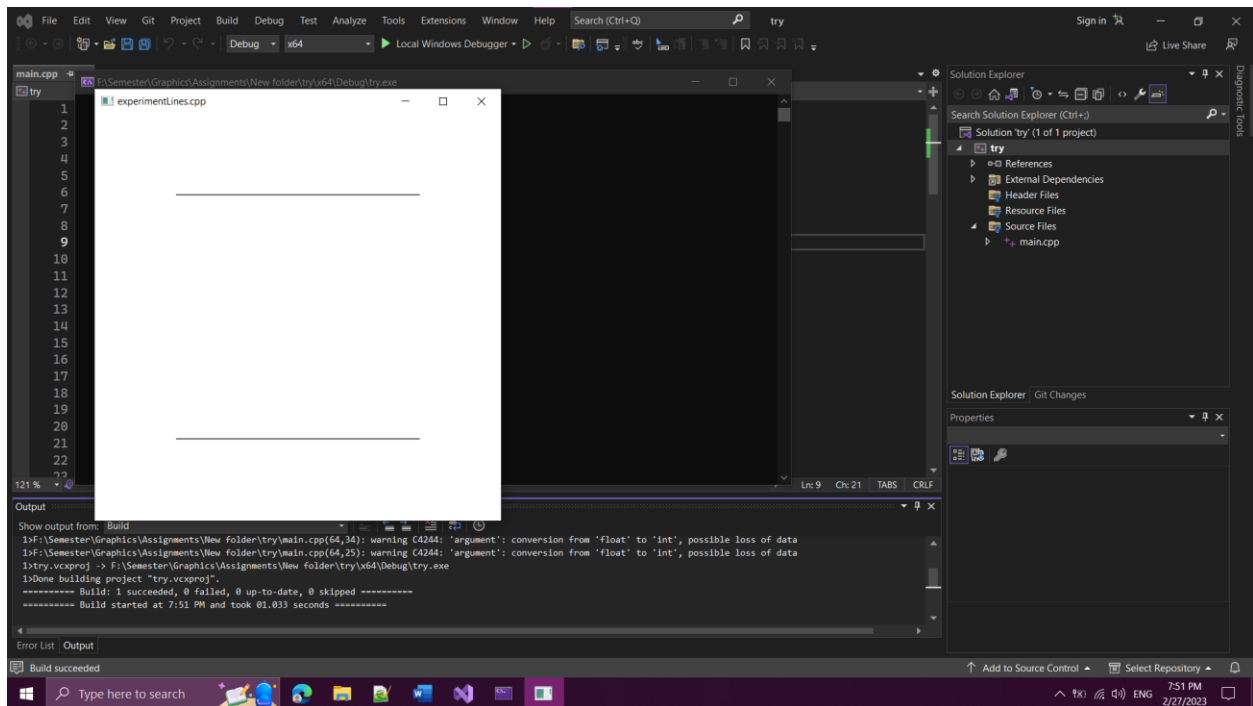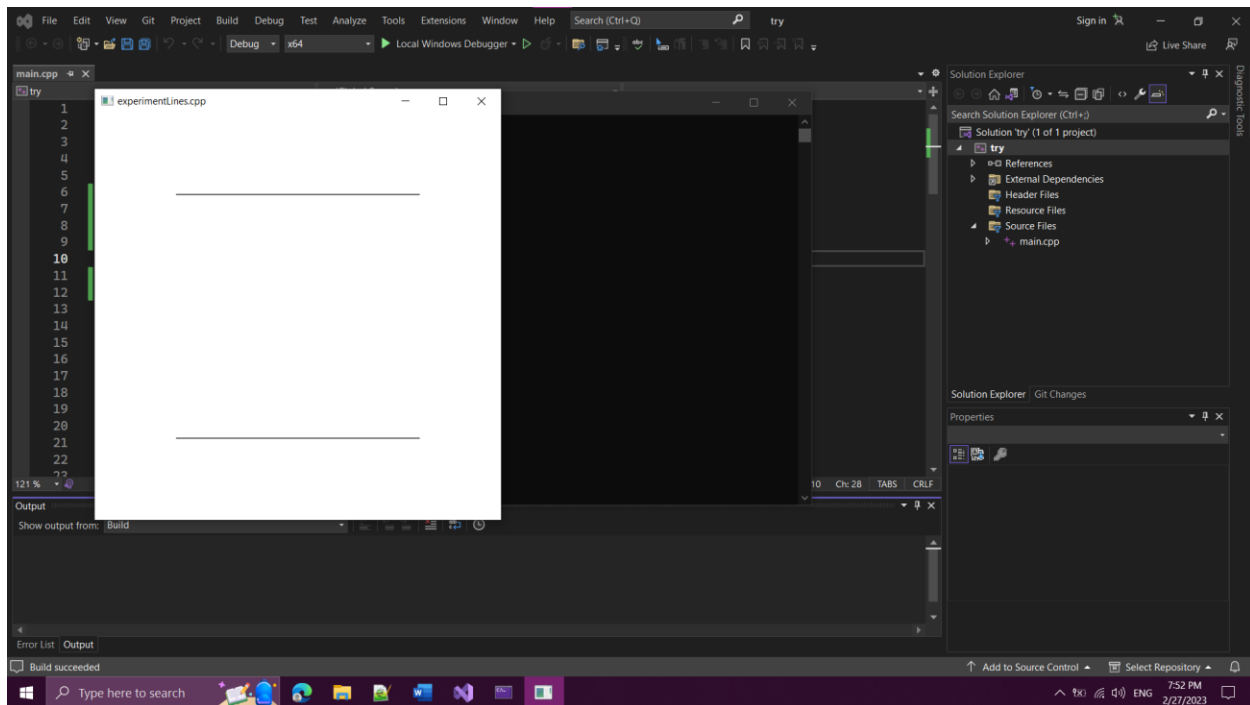  orthoBottom = 0

orthoBottom = 19



- orthoTop
  As we increase orthoTop, the two lines move down.
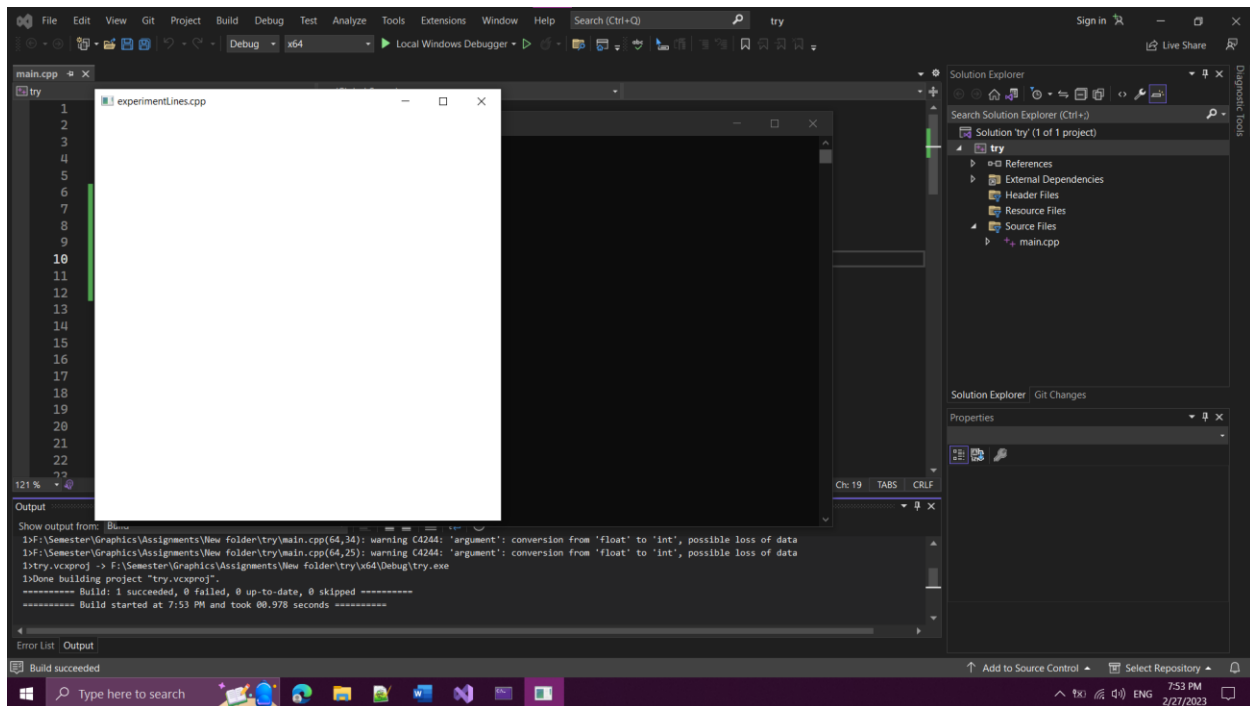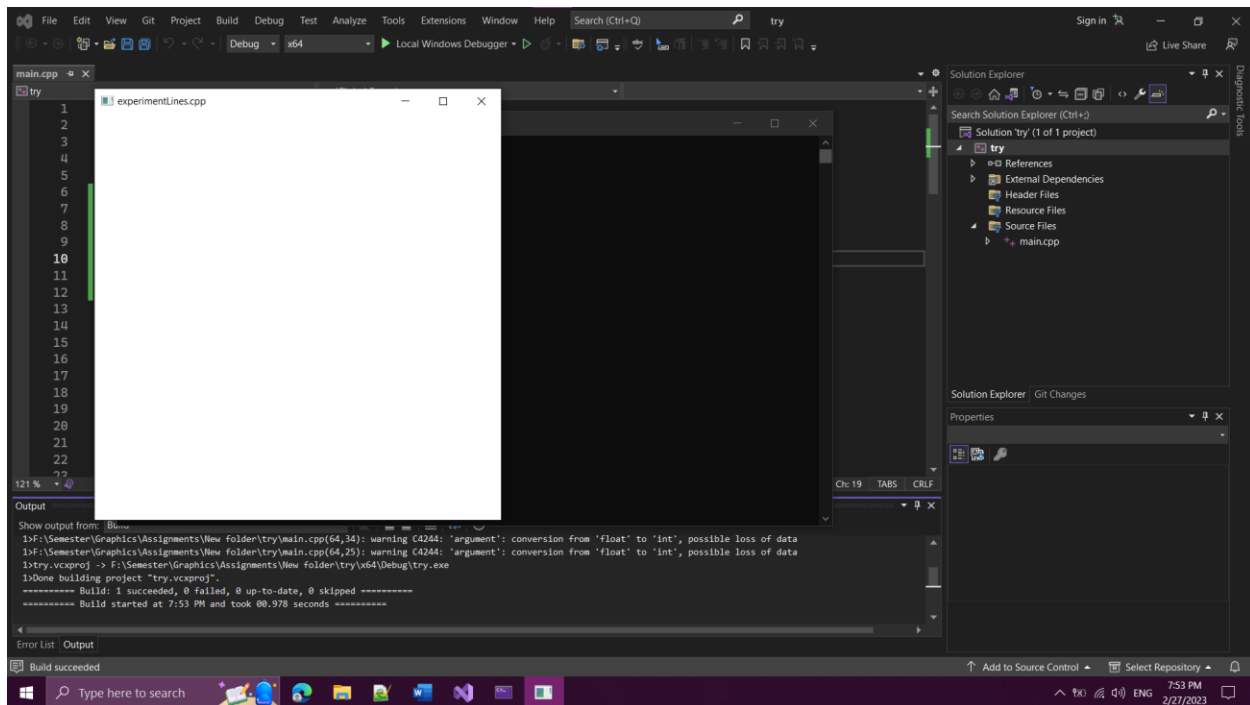  orthoTop = 81

orthoTop = 100



- orthoNear
  when orthoNear is positive, the two lines disappear.
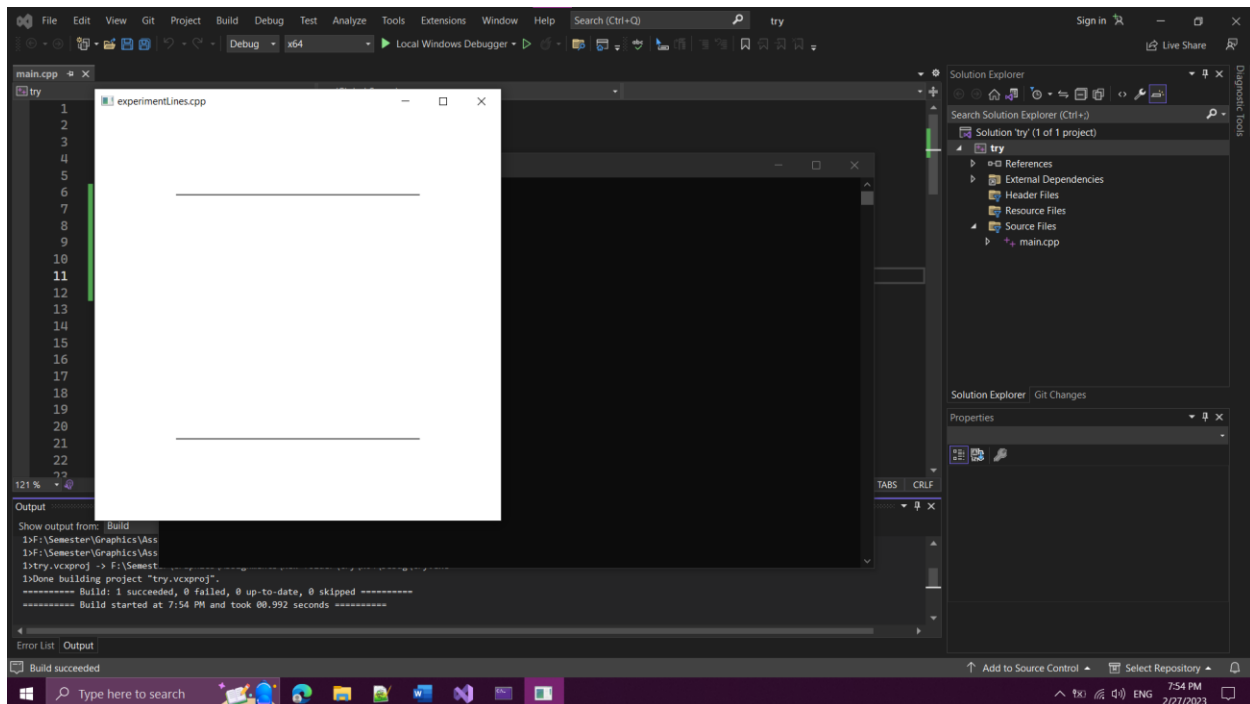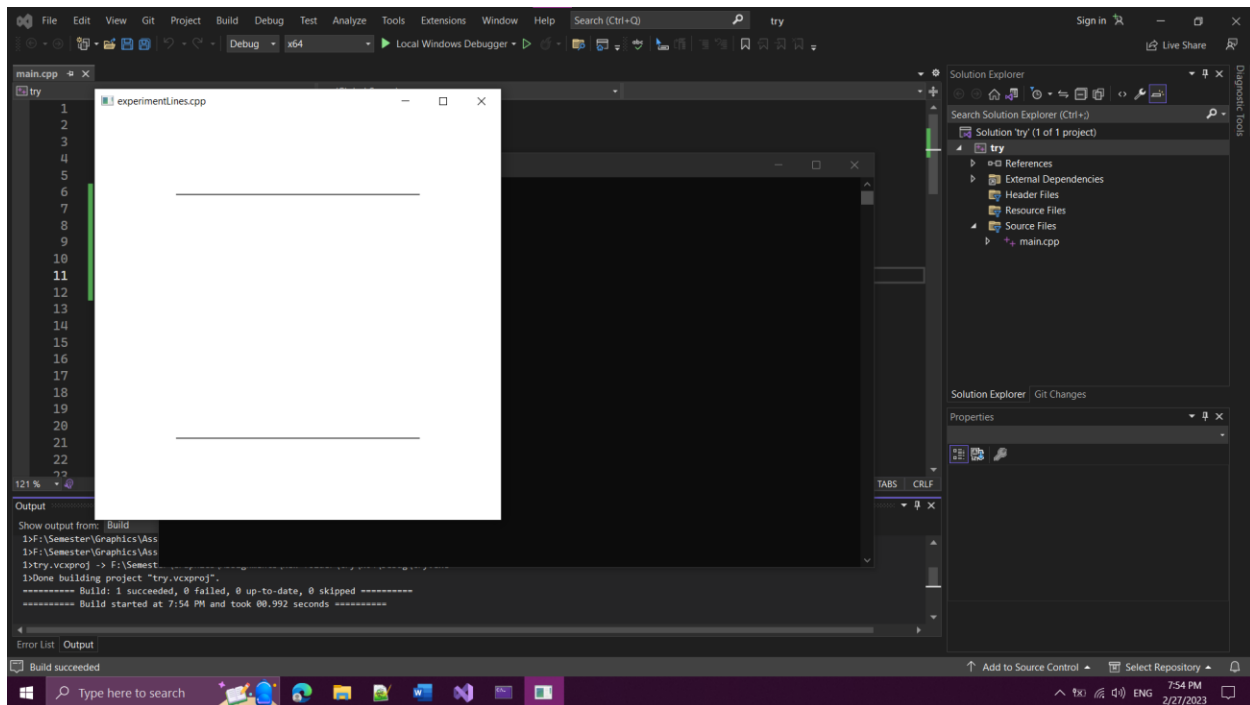  orthoNear = -1

orthoNear = 1



- orthoFar
  when orthoFar is negative, the two lines disappear.
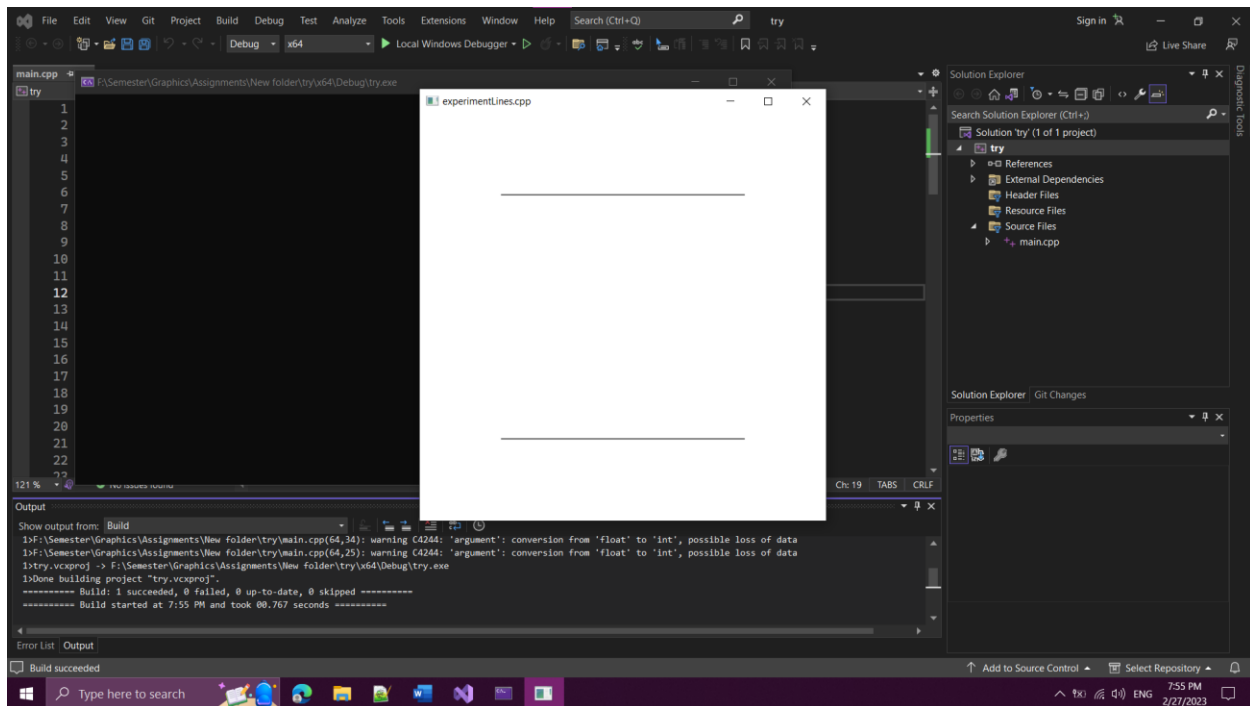  orthoFar = -1
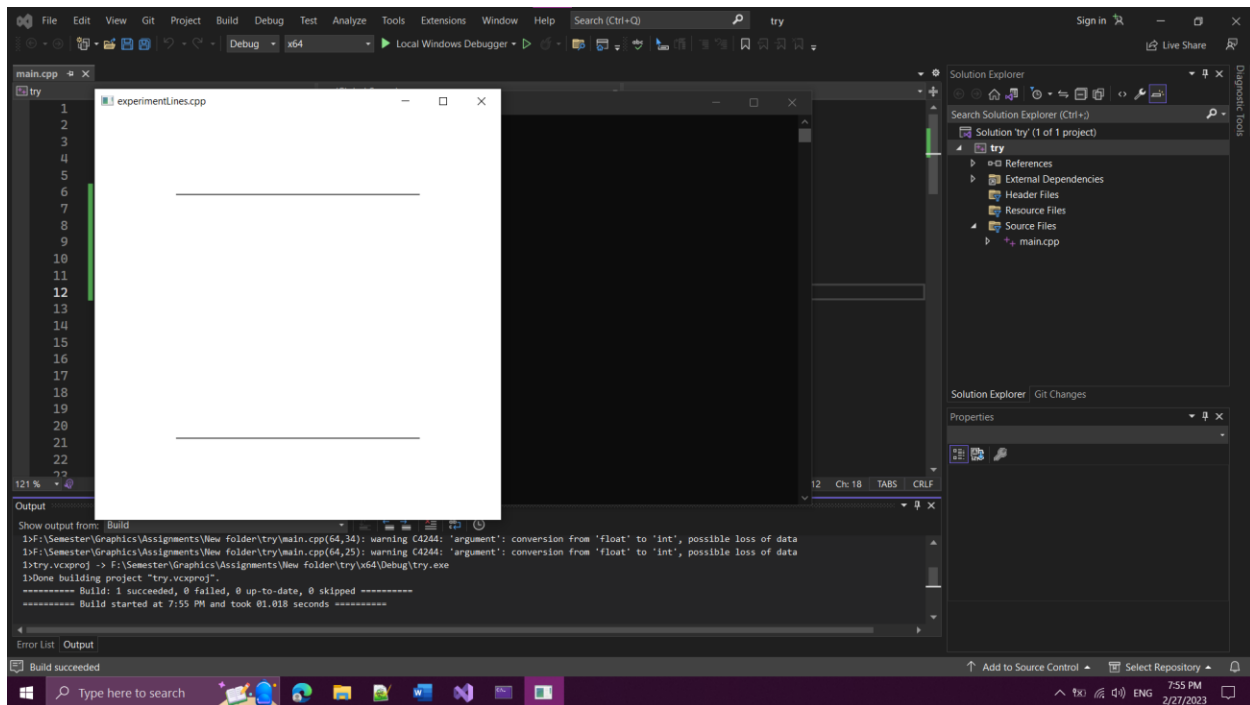
orthoFar = 1



- offsetX
  As we increase offsetX, the window of the draws moves right.
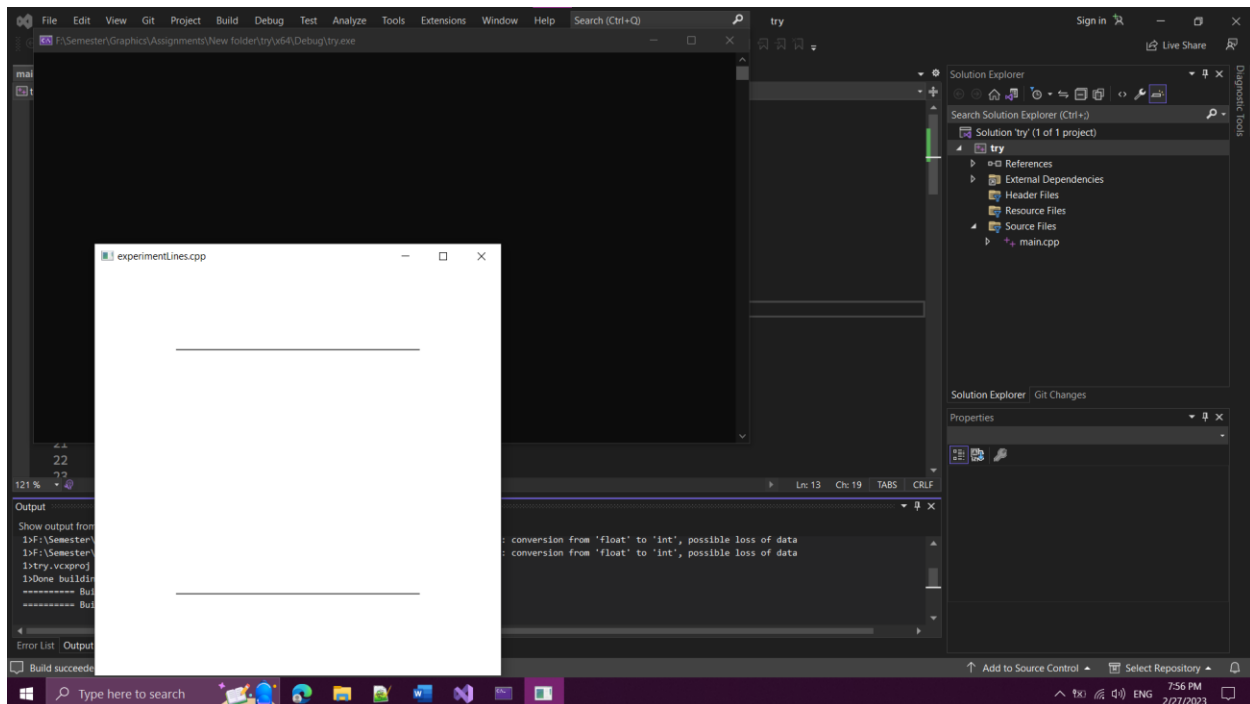  offsetX = 100

offsetX = 500



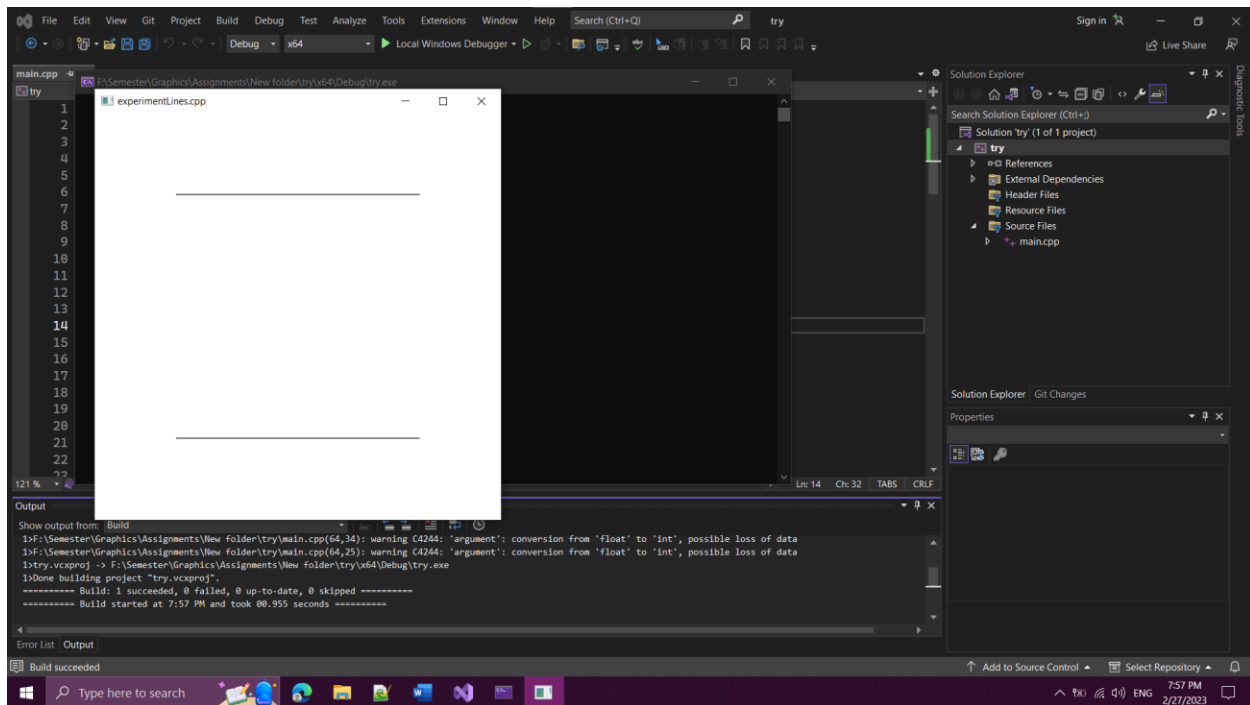- offsetY
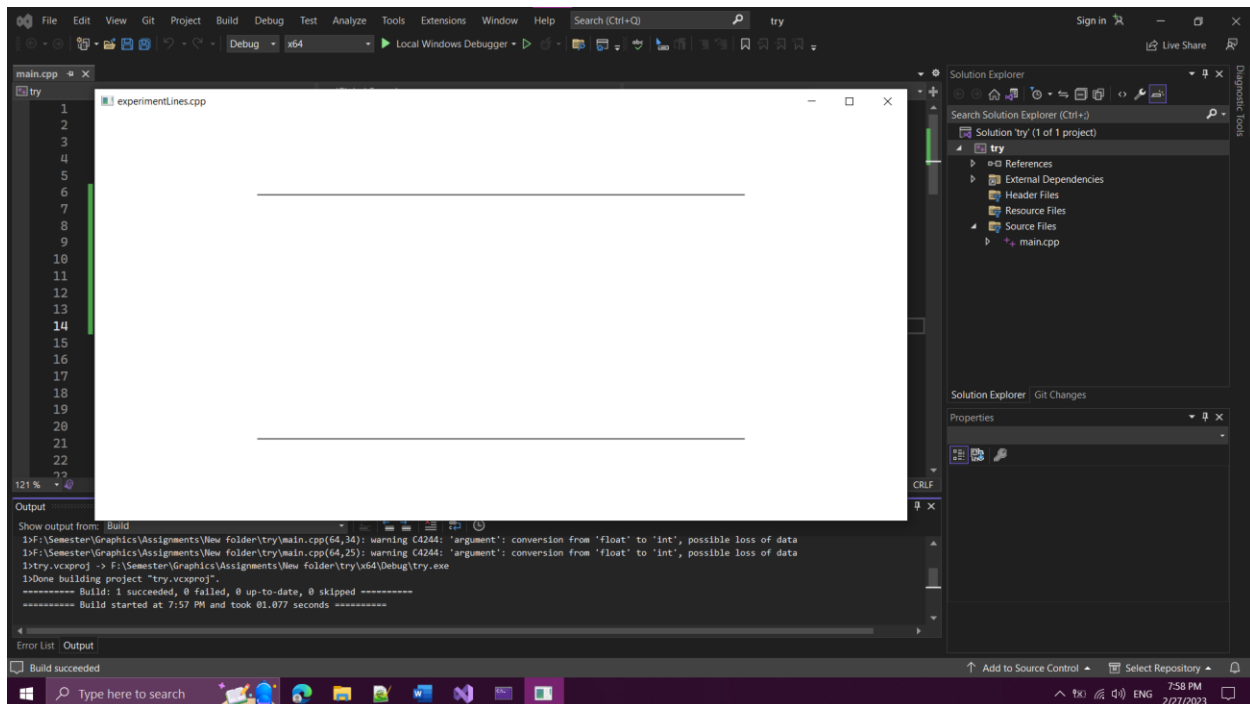  As we increase offsetY, the window of the draws moves down.
  offsetY = 100

offsetY = 290
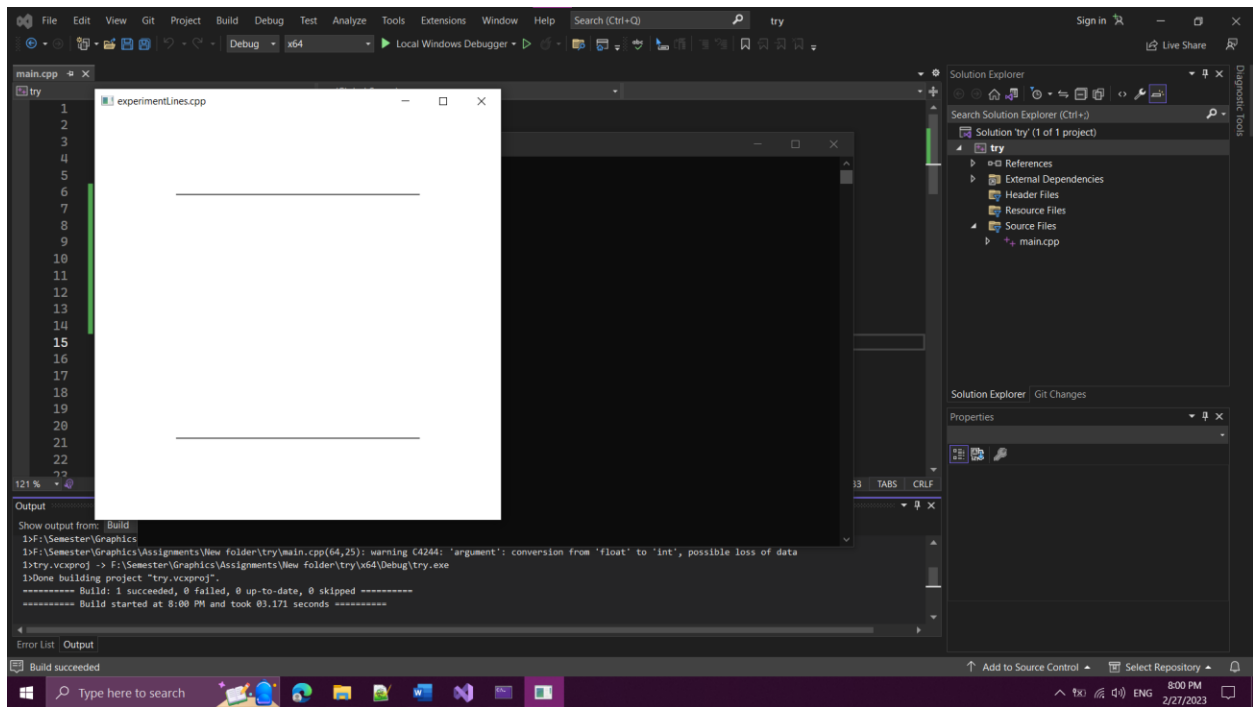


- windowWidth
  As we increase windowWidth, the width of the window of the draws increases.
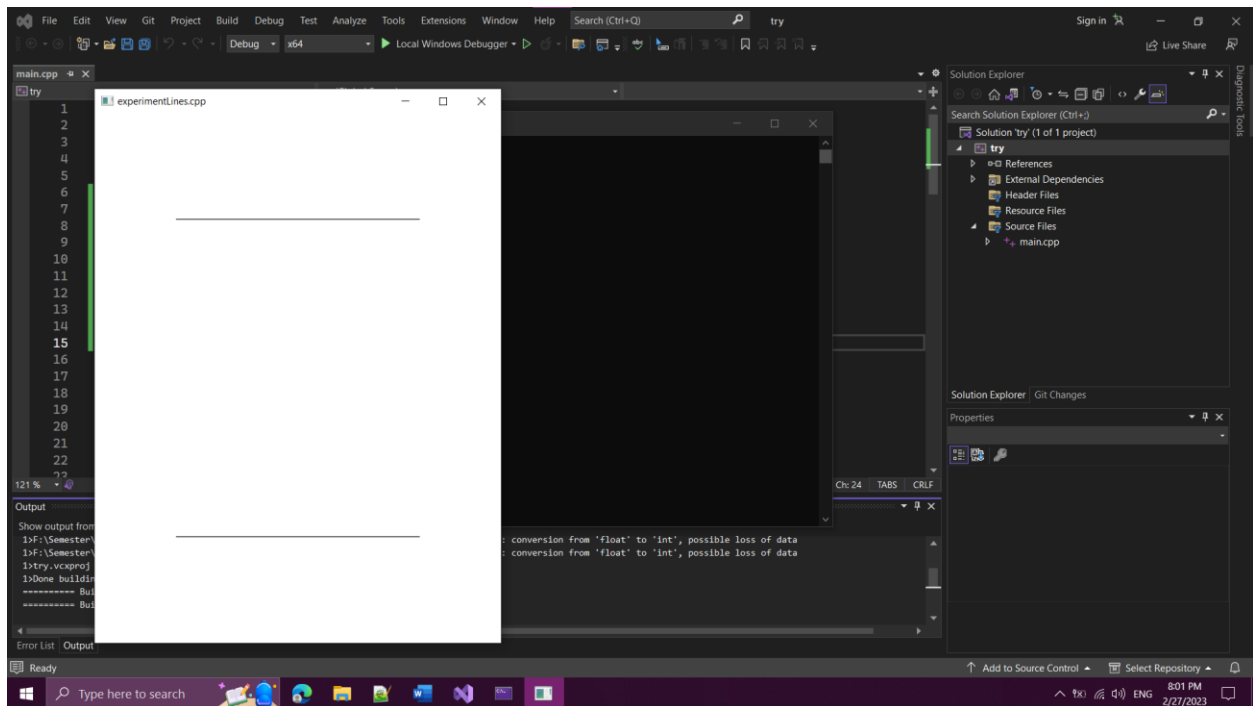  windowWidth = 500

windowWidth = 1000



- windowHeight
  As we increase windowWidth, the height of the window of the drawings increases.
  windowHeight = 500

windowHeight = 650

## ➢ Deduction:

The origin (0, 0) is located at the top-left corner, with x-axis pointing right and y-axis pointing down. The Coordinate System is the Right-Hand Coordinate System (RHS): the x-axis is pointing right, y-axis is pointing up, and z-axis is pointing out of the screen.

## ➢ Resources:

[3D Graphics with OpenGL - The Basic Theory (ntu.edu.sg)](ntu.edu.sg)