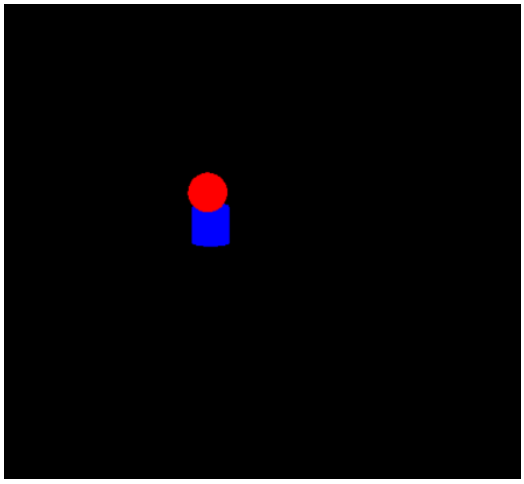

main.cpp [gff] - Code::Blocks 20.03

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main.cpp main.cpp

```
1  #include <GL/glut.h>
2  #include<iostream>
3  using namespace std;
4  void display() {
5      glClear(GL_COLOR_BUFFER_BIT | GL_DEPTH_BUFFER_BIT);
6      glMatrixMode(GL_MODELVIEW);
7      glLoadIdentity();
8
9      // Set the camera position
10     gluLookAt(1.0, 20.0, 5.0,  // eye position
11               0.0, 0.0, 0.0,  // look-at position
12               1.0, 20.0, 20.0); // up direction
13
14     // Draw the cylinder
15     glColor3f(0.0, 0.0, 1.0); // Blue color
16
17     GLUquadric* quadric = gluNewQuadric();
18     gluCylinder(quadric, 0.5, 0.5, 1.0, 20, 20);
19
20     // Draw the sphere on top of the cylinder
21     glColor3f(1.0, 0.0, 0.0); // Red color
22
23     glPushMatrix();
24     glTranslatef(0.0, 1.5, 0.0); // Translate to the top of the cylinder
25     glutSolidSphere(0.5, 20, 20);
26     glPopMatrix();
27
28     glFlush();
29     glutSwapBuffers();
30 }
31
32 void reshape(int width, int height) {
33     glViewport(0, 0, width, height);
34     glMatrixMode(GL_PROJECTION);
35     glLoadIdentity();
36     gluPerspective(45.0, (float)width / (float)height, 0.1, 100.0);
37 }
38
39 int main(int argc, char** argv) {
```

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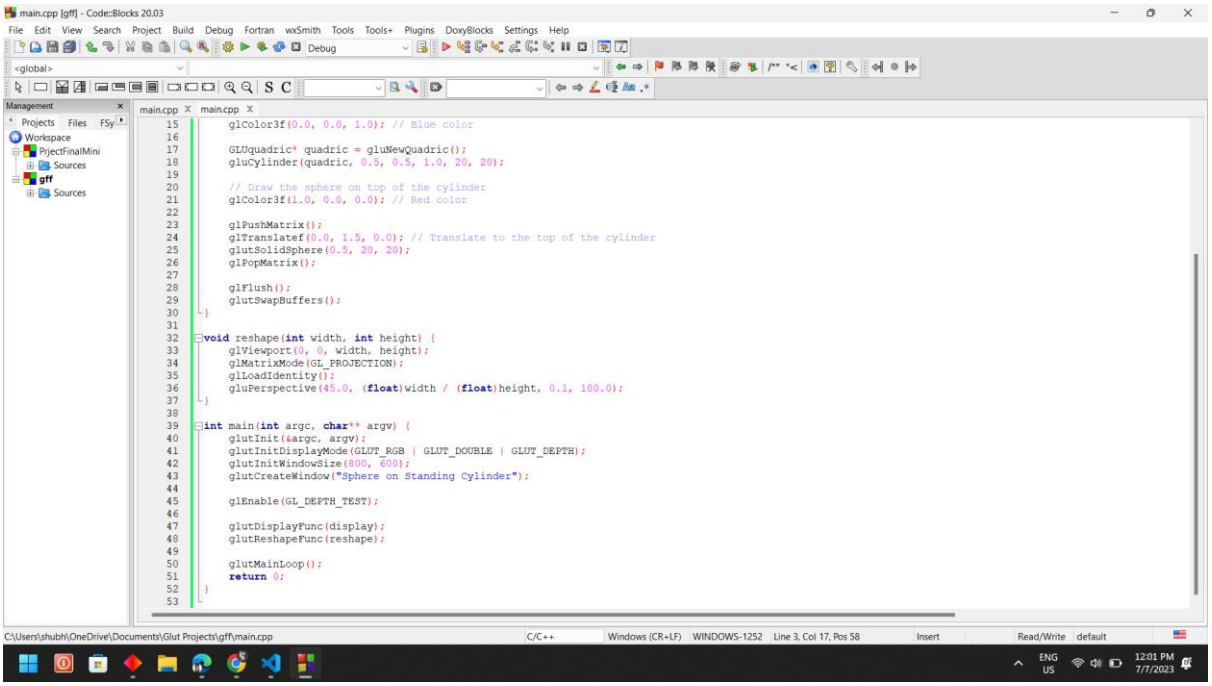

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main.cpp main.cpp

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35     glLoadIdentity();
36     gluPerspective(45.0, (float)width / (float)height, 0.1, 100.0);
37 }
38
39 int main(int argc, char** argv) {
40     glutInit(&argc, argv);
41     glutInitDisplayMode(GLUT_RGB | GLUT_DOUBLE | GLUT_DEPTH);
42     glutInitWindowSize(800, 600);
43     glutCreateWindow("Sphere on Standing Cylinder");
44
45     glEnable(GL_DEPTH_TEST);
46
47     glutDisplayFunc(display);
48     glutReshapeFunc(reshape);
49
50     glutMainLoop();
51     return 0;
52 }
53
```

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