**Lab Taks-3**

Submission Guidelines-

* Rename the file to your id only. If your id is 18-XXXXX-1, then the file name must be 18-XXXXX-1.docx.
* Must submit within time that will be discussed in class VUES to the section named Lab Tak-3
* Must include resources for all the section in the table

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| **Question- 1**  Draw five storied building with windows and a front door |
| **Graph Plot (Picture)-** |
| Code-  #include<windows.h>  #include<GL/glut.h>  void display()  {  glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //rooftop  glColor3f(159/255.0, 85/255.0, 41/255.0);  glBegin(GL\_POLYGON);  glVertex2f(11.0, 29.0);  glVertex2f(-11.0, 29.0);  glVertex2f(-11.0, 33.0);  glVertex2f(11.0, 33.0);  glEnd();  //building  glColor3f(230/255.0, 206/255.0, 168/255.0);  glBegin(GL\_POLYGON);  glVertex2f(10.0, 29.0);  glVertex2f(-10.0, 29.0);  glVertex2f(-10.0, -28.0);  glVertex2f(10.0, -28.0);  glEnd();  //entrance  glColor3f(54/255.0, 34/255.0, 4/255.0);  glBegin(GL\_POLYGON);  glVertex2f(10.0, -28.0);  glVertex2f(-10.0, -28.0);  glVertex2f(-11.0, -30.0);  glVertex2f(11.0, -30.0);  glEnd();  //door  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_POLYGON);  glVertex2f(6.5, -20.0);  glVertex2f(1.5, -20.0);  glVertex2f(1.5, -28.0);  glVertex2f(6.5, -28.0);  glEnd();  glFlush();  //floor1  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(10, -17.0);  glVertex2f(-10, -17.0);  glEnd();  //floor2  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(10, -6.0);  glVertex2f(-10, -6.0);  glEnd();  //floor3  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(10, 6.0);  glVertex2f(-10, 6.0);  glEnd();  //floor4  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(10, 18.0);  glVertex2f(-10, 18.0);  glEnd();  //window1  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-6.0, -20.0);  glVertex2f(-2.0, -20.0);  glVertex2f(-2.0, -25.0);  glVertex2f(-6.0, -25.0);  glEnd();  //window21  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-6.0, -9.0);  glVertex2f(-2.0, -9.0);  glVertex2f(-2.0, -14.0);  glVertex2f(-6.0, -14.0);  glEnd();  //window22  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, -9.0);  glVertex2f(2.0, -9.0);  glVertex2f(2.0, -14.0);  glVertex2f(6.0, -14.0);  glEnd();  //window31  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-6.0, 2.0);  glVertex2f(-2.0, 2.0);  glVertex2f(-2.0, -3.0);  glVertex2f(-6.0, -3.0);  glEnd();  //window32  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, 2.0);  glVertex2f(2.0, 2.0);  glVertex2f(2.0, -3.0);  glVertex2f(6.0, -3.0);  glEnd();  //window41  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-6.0, 14.0);  glVertex2f(-2.0, 14.0);  glVertex2f(-2.0, 9.0);  glVertex2f(-6.0, 9.0);  glEnd();  //windows42  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, 14.0);  glVertex2f(2.0, 14.0);  glVertex2f(2.0, 9.0);  glVertex2f(6.0, 9.0);  glEnd();  //window51  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-6.0, 26.0);  glVertex2f(-2.0, 26.0);  glVertex2f(-2.0, 21.0);  glVertex2f(-6.0, 21.0);  glEnd();  //window52  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, 26.0);  glVertex2f(2.0, 26.0);  glVertex2f(2.0, 21.0);  glVertex2f(6.0, 21.0);  glEnd();  glFlush();  }  void myinit()  {  glClearColor(1.0, 1.0, 1.0, 0.0);  //glColor3f(1.0,0.0,0.0);  glPointSize(5.0);  glMatrixMode(GL\_PROJECTION);  gluOrtho2D(-40, 40.0, -40.0, 40.0);  }  int main(int argc, char\*\* argv)  {  glutInit(&argc, argv);  glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);  glutInitWindowSize(740, 470);  glutInitWindowPosition(0, 0);  glutCreateWindow("building");  glutDisplayFunc(display);  myinit();  glutMainLoop();  } |
| **Output Screenshot (Full Screen)-** |

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| **Question- 2**  Draw a tree |
| **Graph Plot (Picture)-** |
| **Code-**  #include<windows.h>  #include<GL/glut.h>  void display()  {  glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //leaf  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(11.0, -14.0);  glVertex2f(-11.0, -14.0);  glVertex2f(0.0, 2.5);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(8.5, -6.0);  glVertex2f(-8.5,-6.0);  glVertex2f(0.0, 5.0);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, 1.0);  glVertex2f(-6.0, 1.0);  glVertex2f(0.0, 9.0);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(4.5, 7.0);  glVertex2f(-4.5, 7.0);  glVertex2f(0.0, 14.0);  glEnd();  //log  glColor3f(159/255.0, 85/255.0, 41/255.0);  glBegin(GL\_POLYGON);  glVertex2f(1.0, -14.0);  glVertex2f(-1.0, -14.0);  glVertex2f(-1.0, -28.0);  glVertex2f(1.0, -28.0);  glEnd();  glFlush();  }  void myinit()  {  glClearColor(1.0, 1.0, 1.0, 0.0);  //glColor3f(1.0,0.0,0.0);  glPointSize(5.0);  glMatrixMode(GL\_PROJECTION);  gluOrtho2D(-40, 40.0, -40.0, 40.0);  }  int main(int argc, char\*\* argv)  {  glutInit(&argc, argv);  glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);  glutInitWindowSize(740, 470);  glutInitWindowPosition(0, 0);  glutCreateWindow("tree");  glutDisplayFunc(display);  myinit();  glutMainLoop();  } |
| **Output Screenshot (Full Screen)-** |

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| **Question- 3**  Draw a lamppost with black background |
| **Graph Plot (Picture)-** |
| Code-  #include<windows.h>  #include<GL/glut.h>  #include<math.h>  void display()  {  glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //lamp  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(3.5, 9.0);  glVertex2f(0.0, 13.0);  glVertex2f(-3.5, 9.0);  //glEnd();  glColor3f(1,1,0);  glBegin(GL\_POLYGON);  glVertex2f(3.0, 9.0);  glVertex2f(-3.0, 9.0);  glVertex2f(-1.5, 1.0);  glVertex2f(2.0, 1.0);  glEnd();  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(3.5, 9.0);  glVertex2f(3.0, 9.0);  glVertex2f(1.5, 1.0);  glVertex2f(2.0, 1.0);  glEnd();  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-3.5, 9.0);  glVertex2f(-3.0, 9.0);  glVertex2f(-1.5, 1.0);  glVertex2f(-2.0, 1.0);  glEnd();  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(2.5, 1.0);  glVertex2f(-2.5, 1.0);  glVertex2f(-2.5, 0.0);  glVertex2f(2.5, 0.0);  glEnd();  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(1.0, 0.0);  glVertex2f(-1.0, 0.0);  glVertex2f(-1.0, -1.0);  glVertex2f(1.0, -1.0);  glEnd();  //stand  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(0.5, -1.0);  glVertex2f(-0.5, -1.0);  glVertex2f(-0.5, -26.0);  glVertex2f(0.5, -26.0);  glEnd();  glColor3f(155/255.0, 160/255.0, 167/255.0);  glBegin(GL\_POLYGON);  glVertex2f(1.4, -26.0);  glVertex2f(-1.4, -26.0);  glVertex2f(-1.7, -28.0);  glVertex2f(1.7, -28.0);  glEnd();  glFlush();  }  void myinit()  {  glClearColor(1.0, 1.0, 1.0, 0.0);  glColor3f(1.0,0.0,0.0);  glPointSize(5.0);  glMatrixMode(GL\_PROJECTION);  gluOrtho2D(-40, 40.0, -40.0, 40.0);  }  int main(int argc, char\*\* argv)  {  glutInit(&argc, argv);  glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);  glutInitWindowSize(720, 560);  glutInitWindowPosition(0, 0);  glutCreateWindow("lamppost");  glutDisplayFunc(display);  myinit();  glutMainLoop();  } |
| **Output Screenshot (Full Screen)-** |

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| **Question- 4**  Draw a bench |
| **Graph Plot (Picture)-** |
| Code-  #include<windows.h>  #include<GL/glut.h>  void display()  {  glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(10.0, 14.0);  glVertex2f(9.0, 14.0);  glVertex2f(9.0, -8.0);  glVertex2f(10.0, -8.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, 14.0);  glVertex2f(-9.0, 14.0);  glVertex2f(-9.0, -8.0);  glVertex2f(-10.0, -8.0);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.0, 12.0);  glVertex2f(-15.0, 12.0);  glVertex2f(-15.0, 9.5);  glVertex2f(15.0, 9.5);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.0, 8.0);  glVertex2f(-15.0, 8.0);  glVertex2f(-15.0, 5.5);  glVertex2f(15.0, 5.5);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.0, 4.0);  glVertex2f(-15.0, 4.0);  glVertex2f(-15.0, 1.5);  glVertex2f(15.0, 1.5);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.0, 0.5);  glVertex2f(-15.0, 0.5);  glVertex2f(-17.5, -3.0);  glVertex2f(17.5, -3.0);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(17.5, -3.0);  glVertex2f(-17.5, -3.0);  glVertex2f(-17.5, -4.0);  glVertex2f(17.5, -4.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(13.5, -4.0);  glVertex2f(12.5, -4.0);  glVertex2f(12.5, -11.0);  glVertex2f(13.5, -11.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-13.5, -4.0);  glVertex2f(-12.5, -4.0);  glVertex2f(-12.5, -11.0);  glVertex2f(-13.5, -11.0);  glEnd();  glFlush();  }  void myinit()  {  glClearColor(1.0, 1.0, 1.0, 0.0);  //glColor3f(1.0,0.0,0.0);  glPointSize(5.0);  glMatrixMode(GL\_PROJECTION);  gluOrtho2D(-40, 40.0, -40.0, 40.0);  }  int main(int argc, char\*\* argv)  {  glutInit(&argc, argv);  glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);  glutInitWindowSize(740, 470);  glutInitWindowPosition(0, 0);  glutCreateWindow("bench");  glutDisplayFunc(display);  myinit();  glutMainLoop();  } |
| **Output Screenshot (Full Screen)-** |

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| **Question- 5**  Use the building, tree, lamppost and bench to create a scenario |
| **Graph Plot (Picture)-** |
| Code-  #include<windows.h>  #include<GL/glut.h>  void Tree()  {  //glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //leaf  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-17.0, -14.0);  glVertex2f(-37.0, -14.0);  glVertex2f(-27.0, 2.5);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-19.5, -6.0);  glVertex2f(-35.5,-6.0);  glVertex2f(-27.0, 5.0);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-21.0, 1.0);  glVertex2f(-33.0, 1.0);  glVertex2f(-27.0, 9.0);  glEnd();  glColor3f(34.0/255.0, 139.0/255.0, 34.0/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-23.5, 7.0);  glVertex2f(-23.5, 7.0);  glVertex2f(-27.0, 14.0);  glEnd();  //log  glColor3f(159/255.0, 85/255.0, 41/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-26.0, -14.0);  glVertex2f(-28.0, -14.0);  glVertex2f(-28.0, -28.0);  glVertex2f(-26.0, -28.0);  glEnd();  //glFlush();  }  void Building()  {  //glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //rooftop  glColor3f(159/255.0, 85/255.0, 41/255.0);  glBegin(GL\_POLYGON);  glVertex2f(7.0, 29.0);  glVertex2f(-15.0, 29.0);  glVertex2f(-15.0, 33.0);  glVertex2f(7.0, 33.0);  glEnd();  //building  glColor3f(230/255.0, 206/255.0, 168/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, 29.0);  glVertex2f(-14.0, 29.0);  glVertex2f(-14.0, -28.0);  glVertex2f(6.0, -28.0);  glEnd();  //entrance  glColor3f(54/255.0, 34/255.0, 4/255.0);  glBegin(GL\_POLYGON);  glVertex2f(6.0, -28.0);  glVertex2f(-14.0, -28.0);  glVertex2f(-15.0, -30.0);  glVertex2f(7.0, -30.0);  glEnd();  //door  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_POLYGON);  glVertex2f(2.5, -20.0);  glVertex2f(-2.5, -20.0);  glVertex2f(-2.5, -28.0);  glVertex2f(2.5, -28.0);  glEnd();  glFlush();  //floor1  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(6, -17.0);  glVertex2f(-14, -17.0);  glEnd();  //floor2  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(6, -6.0);  glVertex2f(-14, -6.0);  glEnd();  //floor3  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(6, 6.0);  glVertex2f(-14, 6.0);  glEnd();  //floor4  glColor3f(0.0, 0.0, 0.0);  glBegin(GL\_LINES);  glVertex2f(6, 18.0);  glVertex2f(-14, 18.0);  glEnd();  //window1  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, -20.0);  glVertex2f(-6.0, -20.0);  glVertex2f(-6.0, -25.0);  glVertex2f(-10.0, -25.0);  glEnd();  //window21  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, -9.0);  glVertex2f(-6.0, -9.0);  glVertex2f(-6.0, -14.0);  glVertex2f(-10.0, -14.0);  glEnd();  //window22  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(2.0, -9.0);  glVertex2f(-2.0, -9.0);  glVertex2f(-2.0, -14.0);  glVertex2f(2.0, -14.0);  glEnd();  //window31  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, 2.0);  glVertex2f(-6.0, 2.0);  glVertex2f(-6.0, -3.0);  glVertex2f(-10.0, -3.0);  glEnd();  //window32  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(2.0, 2.0);  glVertex2f(-2.0, 2.0);  glVertex2f(-2.0, -3.0);  glVertex2f(2.0, -3.0);  glEnd();  //window41  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, 14.0);  glVertex2f(-6.0, 14.0);  glVertex2f(-6.0, 9.0);  glVertex2f(-10.0, 9.0);  glEnd();  //windows42  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(2.0, 14.0);  glVertex2f(-2.0, 14.0);  glVertex2f(-2.0, 9.0);  glVertex2f(2.0, 9.0);  glEnd();  //window51  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(-10.0, 26.0);  glVertex2f(-6.0, 26.0);  glVertex2f(-6.0, 21.0);  glVertex2f(-10.0, 21.0);  glEnd();  //window52  glColor3f(70/255.0, 130/255.0, 180/255.0);  glBegin(GL\_POLYGON);  glVertex2f(2.0, 26.0);  glVertex2f(-2.0, 26.0);  glVertex2f(-2.0, 21.0);  glVertex2f(2.0, 21.0);  glEnd();  //glFlush();  }  void Bench()  {  //glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //stand  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(30.0, -16.0);  glVertex2f(29.5, -16.0);  glVertex2f(29.5, -26.0);  glVertex2f(30.0, -26.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(21.5, -16.0);  glVertex2f(21.0, -16.0);  glVertex2f(21.0, -26.0);  glVertex2f(21.5, -26.0);  glEnd();  //board  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(32.0, -18.0);  glVertex2f(19.0, -18.0);  glVertex2f(19.0, -17.0);  glVertex2f(32.0, -17.0);  glEnd();  //board2  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(32.0, -19.5);  glVertex2f(19.0, -19.5);  glVertex2f(19.0, -18.5);  glVertex2f(32.0, -18.5);  glEnd();  //board3  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(32.0, -21.0);  glVertex2f(19.0, -21.0);  glVertex2f(19.0, -20.0);  glVertex2f(32.0, -20.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(19.5, -24.0);  glVertex2f(20.0, -24.0);  glVertex2f(20.0, -28.0);  glVertex2f(19.5, -28.0);  glEnd();  glColor3f(63/255.0, 63/255.0, 63/255.0);  glBegin(GL\_POLYGON);  glVertex2f(31.5, -24.0);  glVertex2f(31.0, -24.0);  glVertex2f(31.0, -28.0);  glVertex2f(31.5, -28.0);  glEnd();  //seat  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(32.0, -22.0);  glVertex2f(19.0, -22.0);  glVertex2f(18.0, -23.5);  glVertex2f(33.0, -23.5);  glEnd();  glColor3f(160/255.0, 129/255.0, 81/255.0);  glBegin(GL\_POLYGON);  glVertex2f(33, -23.5);  glVertex2f(18.0, -23.5);  glVertex2f(18.0, -24.0);  glVertex2f(33, -24.0);  glEnd();  //glFlush();  }  void LampPost()  {  //glClear(GL\_COLOR\_BUFFER\_BIT);  //glLoadIdentity();  //lamp  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.5, -8.0);  glVertex2f(12.0, -4.0);  glVertex2f(8.5, -8.0);  glEnd();  glColor3f(249/255.0, 250/255.0, 139/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.0, -8.0);  glVertex2f(9.0, -8.0);  glVertex2f(10.5, -12.0);  glVertex2f(14.0, -12.0);  glEnd();  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(15.5, -8.0);  glVertex2f(15.0, -8.0);  glVertex2f(13.5, -12.0);  glVertex2f(14.0, -12.0);  glEnd();  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(8.5, -8.0);  glVertex2f(9.0, -8.0);  glVertex2f(10.5, -12.0);  glVertex2f(10.0, -12.0);  glEnd();  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(14.5, -12.0);  glVertex2f(9.5, -12.0);  glVertex2f(9.5, -13.0);  glVertex2f(14.5, -13.0);  glEnd();  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(13.0, -13.0);  glVertex2f(11.0, -13.0);  glVertex2f(11.0, -14.0);  glVertex2f(13.0, -14.0);  glEnd();  //stand  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(12.5, -14.0);  glVertex2f(11.5, -14.0);  glVertex2f(11.5, -26.0);  glVertex2f(12.5, -26.0);  glEnd();  glColor3f(60/255.0, 66/255.0, 66/255.0);  glBegin(GL\_POLYGON);  glVertex2f(13.4, -26.0);  glVertex2f(10.6, -26.0);  glVertex2f(10.3, -28.0);  glVertex2f(13.7, -28.0);  glEnd();  //glFlush();  }  void Display()  {  glClear(GL\_COLOR\_BUFFER\_BIT);  glColor3f(103/255.0, 177/255.0, 85/255.0);  glBegin(GL\_POLYGON);  glVertex2f(40.0, -23.5);  glVertex2f(-40.0, -23.5);  glVertex2f(-40.0, -40.0);  glVertex2f(40.0, -40.0);  glEnd();  Tree();  Building();  Bench();  LampPost();  glFlush();  }  void myinit()  {  glClearColor(21/255.0, 38/255.0, 64/255.0, 0.0);  //glColor3f(1.0,0.0,0.0);  glPointSize(5.0);  glMatrixMode(GL\_PROJECTION);  gluOrtho2D(-40, 40.0, -40.0, 40.0);  }  int main(int argc, char\*\* argv)  {  glutInit(&argc, argv);  glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);  glutInitWindowSize(520, 470);  glutInitWindowPosition(0, 0);  glutCreateWindow("scenerio");  glutDisplayFunc(Display);  myinit();  glutMainLoop();  } |
| **Output Screenshot (Full Screen)-** |