**Lab Taks-1**

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 the given deadline in VUES to the section named Lab Tak-1
* Must include resources for all the section in the table

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-graph1** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(0.0f, 0.0f, 0.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(4.0);**  **// Draw a Red 1x1 Square centered at origin**  **glBegin(GL\_LINES);**  **//glColor3f(1.0f,0.0f,0.0f);**  **glColor3ub(247, 220, 111);**  **glVertex2f(0.0f,0.0f);**  **//glColor3ub(240, 200, 11);**  **glVertex2f(0.0f,8.0f);**  **glVertex2f(14.0f,8.0f);**  **glVertex2f(14.0f,0.0f);**  **glVertex2f(0.0f,0.0f);**  **glVertex2f(14.0f,0.0f);**  **glVertex2f(0.0f,8.0f);**  **glVertex2f(14.0f,8.0f);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **glutInitWindowSize(620, 420); // Set the window's initial width & height**  **gluOrtho2D(-15,15,-15,15);**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-**  **firstoutput** |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-graph2** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(0.0f, 0.0f, 0.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(4.0);**  **// Draw a Red 1x1 Square centered at origin**  **glBegin(GL\_QUADS);**  **//glColor3f(1.0f,0.0f,0.0f);**  **glColor3ub(255, 0, 0);**  **glVertex2f(0.0f,0.0f);**  **glVertex2f(-4.0f,-10.0f);**  **glVertex2f(12.0f,-10.0f);**  **glVertex2f(8.0f,0.0f);**  **//glColor3ub(240, 200, 11);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **glutInitWindowSize(620, 420); // Set the window's initial width & height**  **gluOrtho2D(-20,20,-20,20);**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-**  secondOutput |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-**  **graph3** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(0.0f, 0.0f, 0.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(4.0);**  **// Draw a Red 1x1 Square centered at origin**  **glBegin(GL\_LINES);**  **//glColor3f(1.0f,0.0f,0.0f);**  **glColor3ub(255, 0, 0);**  **glVertex2f(0.0f,80.0f);**  **glVertex2f(0.0f,-80.0f);**  **glVertex2f(-80.0f,0.0f);**  **glVertex2f(80.0f,0.0f);**  **//glColor3ub(240, 200, 11);**  **glEnd();**  **glBegin(GL\_QUADS);**  **glColor3ub(255,0,0);**  **glVertex2d(-75.0,70.0);**  **glVertex2d(-75.0,10.0);**  **glVertex2d(-15.0,10.0);**  **glVertex2d(-15.0,70.0);**  **glEnd();**  **glBegin(GL\_QUADS);**  **glColor3ub(0,128,0);**  **glVertex2d(10.0,40.0);**  **glVertex2d(10.0,25.0);**  **glVertex2d(40.0,25.0);**  **glVertex2d(40.0,40.0);**  **glEnd();**  **glBegin(GL\_TRIANGLES);**  **glColor3ub(0,128,0);**  **glVertex2d(40.0,60.0);**  **glVertex2d(40.0,5.0);**  **glVertex2d(70.0,35.0);**  **glEnd();**  **glBegin(GL\_TRIANGLES);**  **glColor3ub(218,112,214);**  **glVertex2d(-15.0,-10.0);**  **glVertex2d(-60.0,-30.0);**  **glVertex2d(-15.0,-70.0);**  **glEnd();**  **glBegin(GL\_TRIANGLES);**  **glColor3ub(255,255,0);**  **glVertex2d(40.0,-20.0);**  **glVertex2d(15.0,-60.0);**  **glVertex2d(70.0,-60.0);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutInitWindowSize(520, 520); // Set the window's initial width & height**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **gluOrtho2D(-100,100,-100,100);**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-**  **thirdOutput** |