**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)-** |
| **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(255.0f, 255.0f, 255.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glColor3f(0.0f, 0.0f, 0.0f);**  **glBegin(GL\_LINE\_LOOP);**  **glVertex2f(-0.5, -0.5);**  **glVertex2f(0.5, -0.5);**  **glVertex2f(0.5, 0.5);**  **glVertex2f(-0.5, 0.5);**  **glEnd();**  **glFlush();**  **}**  **// Clear the color buffer (background)**  **/\* 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(320, 320); // Set the window's initial width & height**  **glutDisplayFunc(display);**  **gluOrtho2D(20.0,20.0,20.0,20.0) ; // Register display callback handler for window re-paint**  **glutMainLoop();**  **// Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **using namespace std;**  **void display()**  **{**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glColor3f(1.0, 0.0, 0.0); // Set color to white**  **glBegin(GL\_POLYGON);**  **glVertex2f(-0.5, -0.5);**  **glVertex2f(1.0, -0.5);**  **glVertex2f(1.0, -0.5);**  **glVertex2f(0.8, 0.5);**  **glVertex2f(0.8, 0.5);**  **glVertex2f(-0.3, 0.5);**  **glVertex2f(-0.3, 0.5);**  **glVertex2f(-0.5, -0.5);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);**  **glutInitWindowSize(800, 400);**  **glutCreateWindow("Rectangle Drawing");**  **glClearColor(1.0, 1.0, 1.0, 1.0);**  **gluOrtho2D(-2.0, 2.0, -2.0, 2.0);**  **glutDisplayFunc(display);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#include<windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **using namespace std;**  **void display()**  **{**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glColor3f(0.0, 0.0, 0.0);**  **glBegin(GL\_LINES);**  **glVertex2f(-3.8, -0.5);**  **glVertex2f(3.8, -0.5);**  **glVertex2f(0.0, 3.8);**  **glVertex2f(0.0, -3.8);**  **glEnd();**  **glColor3f(1.0, 0.0, 0.0);**  **glBegin(GL\_POLYGON);**  **glVertex2f(-3.0, 1.0);**  **glVertex2f(-1.0, 1.0);**  **glVertex2f(-1.0, 1.0);**  **glVertex2f(-1.0, 3.0);**  **glVertex2f(-1.0, 3.0);**  **glVertex2f(-3.0, 3.0);**  **glVertex2f(-3.0, 3.0);**  **glVertex2f(-3.0, 1.0);**  **glEnd();**    **glColor3f(0.0, 0.8, 0.0);**  **glBegin(GL\_QUADS);**    **glVertex2f(1.0, 1.0);**  **glVertex2f(3.0, 1.0);**  **glVertex2f(3.0, 1.0);**  **glVertex2f(3.0, 2.0);**  **glVertex2f(3.0, 2.0);**  **glVertex2d(1.0, 2.0);**  **glVertex2f(1.0, 2.0);**  **glVertex2f(1.0, 1.0);**    **glVertex2f(3.0, 0.5);**  **glVertex2f(3.0, 2.5);**  **glVertex2f(3.0, 2.5);**  **glVertex2f(3.6, 1.5);**  **glEnd();**  **glColor3f(1.0, 1.0, 0.0);**  **glBegin(GL\_QUADS);**  **glVertex2f(2.0, -1.0);**  **glVertex2f(0.5, -3.0);**  **glVertex2f(0.5, -3.0);**  **glVertex2f(3.5, -3.0);**  **glVertex2f(3.5, -3.0);**  **glVertex2f(2.0, -1.0);**  **glEnd();**    **glColor3f(0.29 , 0.0, 0.6);**  **glBegin(GL\_QUADS);**  **glVertex2f(-1.0, -1.0);**  **glVertex2f(-1.0, -3.5);**  **glVertex2f(-1.0, -3.0);**  **glVertex2f(-2.5, -2.2);**  **glVertex2f(-2.5, -2.4);**  **glVertex2f(-1.0, -1.0);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);**  **glutInitWindowSize(1000, 1000);**  **glutCreateWindow("LAB\_1\_Task\_3");**  **glClearColor(1.0, 1.0, 1.0, 1.0);**  **gluOrtho2D(-4.0, 4.0, -4.0, 4.0);**  **glutDisplayFunc(display);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |