

# TUGAS TEKSTUR KOMPUTER GRAFIK (B)



DISUSUN OLEH:

Rezki anwar - 4520210033

Teknik Informatika Universitas Pancasila  
Tahun ajaran 2022/2023

## CODE PROGRAM:

```
#include <GL/glut.h>
#include <stdlib.h>
#include <stdio.h>
/* Create checkerboard texture */
#define checkImageWidth 64
#define checkImageHeight 64
static GLubyte checkImage[checkImageHeight][checkImageWidth][4];
static GLuint texName;
void makeCheckImage(void)
{
    int i, j, c;
    for (i = 0; i < checkImageHeight; i++) {
        for (j = 0; j < checkImageWidth; j++) {
            c = (((i&0x8)==0)^((j&0x8)==0))*255;
            checkImage[i][j][0] = (GLubyte) c;
            checkImage[i][j][1] = (GLubyte) c;
            checkImage[i][j][2] = (GLubyte) c;
            checkImage[i][j][3] = (GLubyte) 255;
        }
    }
}

void init(void)
{
    glClearColor (0.0, 0.0, 0.0, 0.0);
    glShadeModel(GL_FLAT);
    glEnable(GL_DEPTH_TEST);
    makeCheckImage();
    glPixelStorei(GL_UNPACK_ALIGNMENT, 1);
    glGenTextures(1, &texName);
    glBindTexture(GL_TEXTURE_2D, texName);
    glTexParameteri(GL_TEXTURE_2D, GL_TEXTURE_WRAP_S, GL_REPEAT);
    glTexParameteri(GL_TEXTURE_2D, GL_TEXTURE_WRAP_T, GL_REPEAT);
    glTexParameteri(GL_TEXTURE_2D, GL_TEXTURE_MAG_FILTER,
        GL_NEAREST);
    glTexParameteri(GL_TEXTURE_2D, GL_TEXTURE_MIN_FILTER,
        GL_NEAREST);
    glTexImage2D(GL_TEXTURE_2D, 0, GL_RGBA, checkImageWidth,
        checkImageHeight, 0, GL_RGBA, GL_UNSIGNED_BYTE,
        checkImage);
}

void display(void)
{
    glClear(GL_COLOR_BUFFER_BIT | GL_DEPTH_BUFFER_BIT);
    glEnable(GL_TEXTURE_2D);
    glTexEnvf(GL_TEXTURE_ENV, GL_TEXTURE_ENV_MODE, GL_DECAL);
```

```

glBindTexture(GL_TEXTURE_2D, texName);
glBegin(GL_QUADS);
glTexCoord2f(0.0, 0.0); glVertex3f(-2.0, -1.0, 0.0);
glTexCoord2f(0.0, 1.0); glVertex3f(-2.0, 1.0, 0.0);
glTexCoord2f(1.0, 1.0); glVertex3f(0.0, 1.0, 0.0);
glTexCoord2f(1.0, 0.0); glVertex3f(0.0, -1.0, 0.0);
glTexCoord2f(0.0, 0.0); glVertex3f(1.0, -1.0, 0.0);
glTexCoord2f(0.0, 1.0); glVertex3f(1.0, 1.0, 0.0);
glTexCoord2f(1.0, 1.0); glVertex3f(2.41421, 1.0, -1.41421);
glTexCoord2f(1.0, 0.0); glVertex3f(2.41421, -1.0, -1.41421);
glEnd();
glFlush();
glDisable(GL_TEXTURE_2D);
}

void reshape(int w, int h)
{
    glViewport(0, 0, (GLsizei) w, (GLsizei) h);
    glMatrixMode(GL_PROJECTION);
    glLoadIdentity();
    gluPerspective(60.0, (GLfloat) w/(GLfloat) h, 1.0, 30.0);
    glMatrixMode(GL_MODELVIEW);
    glLoadIdentity();
    glTranslatef(0.0, 0.0, -3.6);
}

void keyboard (unsigned char key, int x, int y)
{
    switch (key) {
        case 27:
            exit(0);
            break;
        default:
            break;
    }
}

int main(int argc, char** argv)
{
    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB | GLUT_DEPTH);
    glutInitWindowSize(250, 250);
    glutInitWindowPosition(100, 100);
    glutCreateWindow ("4520210033_Rezki anwar");
    init();
    glutDisplayFunc(display);
    glutReshapeFunc(reshape);
    glutKeyboardFunc(keyboard);
    glutMainLoop();
}

```

**RUN PROGRAM:**

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

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Debug

<global> main(int argc, char\*\* argv): int

Management

Projects Files FSym

Workspace

TugasTekstur

Sources

main.cpp

main.cpp

```
66 glMatrixMode(GL_MODELVIEW);
67 glLoadIdentity();
68 glTranslatef(0.0, 0.0, -3.6);
69
70 void keyboard (unsigned char key, int x, int y)
71 {
72     switch (key) {
73         case 27:
74             exit(0);
75             break;
76         default:
77             break;
78     }
79 }
80 int main(int argc, char** argv)
81 {
82     glutInit(&argc, argv);
83     glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB | GLUT_DEPTH);
84     glutInitWindowSize(250, 250);
85     glutInitWindowPosition(100, 100);
86     glutCreateWindow ("4520210033 Rezki anwar");
87     init();
88     glutDisplayFunc(display);
89     glutReshapeFunc(reshape);
90     glutKeyboardFunc(keyboard);
91     glutMainLoop();
92     return 0;
93 }
94
```

4520210033 Rezki anwar

4520210033 Rezki anwar

Logs & others

Code::Blocks X Search results X Cccc X Build log X Build messages X CppCheck/Vera++ X CppCheck/Vera++ messages X Cscope X Debugger X DoxyBlocks X Fortran info X Cloc

Checking for existence: C:\CodeBlocks\MinGW\x86\_64-w64-mingw32\TugasTekstur\bin\Debug\TugasTekstur.exe

Set variable: PATH=C:\CodeBlocks\MinGW\x86\_64-w64-mingw32\bin;C:\CodeBlocks\MinGW\bin;C:\Program Files\Eclipse Adoptium\jdk-17.0.4-hotspot\bin;C:\Windows\System32;C:\Windows;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common;C:\Program Files\NVIDIA Corporation\NVIDIA NvDLISR;C:\Users\USER\AppData\Local\Programs\Python\Python310;C:\Users\USER\AppData\Local\Programs\Python\Python310\Scripts;C:\Users\USER\AppData\Local\Microsoft\WindowsApps;C:\Program Files\Java\jdk1.8.0\_341\bin;C:\Users\USER\AppData\Local\Programs\Microsoft VS Code\bin

Executing: "C:\CodeBlocks\cb\_console\_runner.exe" "C:\CodeBlocks\MinGW\x86\_64-w64-mingw32\TugasTekstur\bin\Debug\TugasTekstur.exe" (in C:\CodeBlocks\MinGW\x86\_64-w64-mingw32\bin)

C:\CodeBlocks\MinGW\x86\_64-w64-mingw32\TugasTekstur\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 82, Col 16, Pos 2661 Insert Read/Write default

ENG 07:18 PM