**/\*EXPERIMENT NO.- 8**

**PROBLEM STATEMENT-** Implement animation principles for any object.

**ROLL NO.-** ITSA01

**NAME-** Rahul Devidas Thakare

\*/

**INPUT**

#include<GL/glut.h>

#define ESCAPE 27

int window;

float rtri= 0.0f;

void InitGL(int *Width*, int *Height*){

    glClearColor(1.0f,1.0f,1.0f,1.0f);

    glEnable(GL\_DEPTH\_TEST);

    glShadeModel(GL\_SMOOTH);

    glMatrixMode(GL\_PROJECTION);

    glLoadIdentity();

    gluPerspective(45.0f,(GLfloat)Width/(GLfloat)Height,0.1f,100.0f);

    glMatrixMode(GL\_MODELVIEW);

}

float ballX=-0.5f;

float ballY=0.0f;

float ballZ=0.0f;

void drawBall(void){

    glColor3f(1.0,0.0,1.0);

    glTranslatef(ballX,ballY,ballZ);

    glRotatef(ballX,ballX,ballY,ballZ);

    glutSolidSphere(0.3,50,50);

    glTranslatef(ballX+1.5,ballY,ballZ);

    glutSolidSphere(0.3,50,50);

}

void DrawGLScene(){

    glClear(GL\_COLOR\_BUFFER\_BIT);

    glLoadIdentity();

    glTranslatef(rtri,0.0f,-6.0f);

    glBegin(GL\_POLYGON);

        glColor3f(1.0f,0.0f,0.0f);

        glVertex3f(-1.0f,1.0f,0.0f);

        glVertex3f(0.4f,1.0f,0.0f);

        glVertex3f(1.0f,0.4f,0.0f);

    glEnd();

    drawBall();

    rtri+=0.005f;

    if(rtri>2){

        rtri=-2.0f;

    }

    glutSwapBuffers();

}

void keyPressed(unsigned char *key*,int *x*,int *y*){

    if(key==ESCAPE){

        glutDestroyWindow(window);

        exit(0);

    }

}

int main(int *argc*,char\*\**argv*){

    glutInit(&argc,argv);

    glutInitDisplayMode(GLUT\_DOUBLE | GLUT\_RGB);

    glutInitWindowSize(640,480);

    glutInitWindowPosition(0,0);

    window=glutCreateWindow("Moving Car");

    glutDisplayFunc(DrawGLScene);

    glutIdleFunc(DrawGLScene);

    glutKeyboardFunc(keyPressed);

    InitGL(640,480);

    glutMainLoop();

    return 0;

}