// Name – Dahiwal Satyam Santoshkumar

// Roll Number – 207019

#include<iostream>

#include<GL/glut.h>

using namespace std;

int frame1=0;

void Init()

{

glClearColor(0.6,0.9,1,0);

gluOrtho2D(0,640,0,480);

glMatrixMode(GL\_PROJECTION);

glLoadIdentity();

glMatrixMode(GL\_MODELVIEW);

}

void car()

{

glColor3f(0.8,0.8,0.8);

glBegin(GL\_POLYGON);

glVertex2d(20,160);

glVertex2d(20,200);

glVertex2d(100,200);

glVertex2d(120,180);

glVertex2d(120,160);

glEnd();

glColor3f(0,0,0);

glBegin(GL\_LINE\_LOOP);

glVertex2d(80,200);

glVertex2d(80,180);

glVertex2d(120,180);

glVertex2d(100,200);

glEnd();

glBegin(GL\_LINE\_LOOP);

glVertex2d(20,160);

glVertex2d(20,200);

glVertex2d(100,200);

glVertex2d(120,180);

glVertex2d(120,160);

glEnd();

glColor3f(0,0,0); //wheels

glPushMatrix();

glTranslated(30,160,0);

glutWireSphere(5,110,110);

glPopMatrix();

glPushMatrix();

glTranslated(110,160,0);

glutWireSphere(5,110,110);

glPopMatrix();

glFlush();

}

void doframe(int v)

{

frame1++;

glutPostRedisplay();

glutTimerFunc(20,doframe,0);

}

void Display()

{

glClear(GL\_COLOR\_BUFFER\_BIT | GL\_DEPTH\_BUFFER\_BIT);

glColor3f(0,0.75,0);

glBegin(GL\_TRIANGLES); //mountains

glVertex2d(0,300);

glVertex2d(75,350);

glVertex2d(150,300);

glVertex2d(140,300);

glVertex2d(230,350);

glVertex2d(300,300);

glVertex2d(340,300);

glVertex2d(415,350);

glVertex2d(490,300);

glVertex2d(480,300);

glVertex2d(570,350);

glVertex2d(640,300);

glEnd();

glColor3f(0.5,1,0.5); //surface

glBegin(GL\_POLYGON);

glVertex2d(0,0);

glVertex2d(0,300);

glVertex2d(640,300);

glVertex2d(640,0);

glEnd();

glColor3f(0,1,1); //river

glBegin(GL\_POLYGON);

glVertex2d(220,0);

glVertex2d(300,300);

glVertex2d(340,300);

glVertex2d(400,0);

glEnd();

glColor3f(0.5,0.5,0.5); //road

glBegin(GL\_POLYGON);

glVertex2d(0,120);

glVertex2d(0,160);

glVertex2d(640,160);

glVertex2d(640,120);

glEnd();

glColor3f(1,0,0.5); //Building

glBegin(GL\_POLYGON);

glVertex2d(10,160);

glVertex2d(10,260);

glVertex2d(45,300);

glVertex2d(80,260);

glVertex2d(80,160);

glEnd();

glColor3f(1,1,1);

glBegin(GL\_LINES);

glVertex2d(45,220);

glVertex2d(45,240);

glEnd();

glPushMatrix(); //Move car from left to right

glTranslated((frame1 % 640),0,0);

car();

glPopMatrix();

glFlush();

}

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

{

glutInit(&argc,argv);

glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);

glutInitWindowPosition(0,0);

glutInitWindowSize(640,480);

glutCreateWindow("ANIMATION");

Init();

glutDisplayFunc(Display);

glutTimerFunc(100,doframe,0);

glutMainLoop();

}

Output



