///Keypress->

///Daymode[],Nightmode[N],cloudmove[D],cloudstop[A]

///trainstop[Q],trainstart[W],trainspeedup[E],trainspeeddown[R]

#include <iostream>

#include<cstdio>

#include <windows.h>

#include <cstdlib>

#include<math.h>

#include<GL/gl.h>

#include <GL/glut.h>

# define PI 3.14159265358979323846

using namespace std;

float cloud\_X = 0;

float cloud\_X2 = 0;

float cloud\_X3 = 0;

int cloudStatus = 1;

float \_nt = 0.0;

float \_nwc = 0.0;

bool night = false;

bool nightWindowColor = false;

float ferry\_x\_pos = 30.0f;

float flag\_x\_pos = 30.0f;

float car1\_x\_pos = -20.0f;

float car2\_x\_pos = 500.0f;

float train\_x\_pos =-150.0f;

int state = 3, tstate = 1;

void Init (void)

{

glClearColor(0.0, 0.0, 0.0, 0.0);

glMatrixMode(GL\_PROJECTION);

glLoadIdentity();

gluOrtho2D(0.0, 500.0, 0.0, 500.0);

}

float angle1= 0.0f;

void windmill1(){ ///Shakhawat's windmill

glBegin(GL\_POLYGON);// stem

glColor3ub(192,192,192);

glVertex2f(58.0f , 200.0f);

glVertex2f(52.0f , 200.0f);

glVertex2f(54.0f , 306.0f);

glVertex2f(56.0f , 306.0f);

glEnd();

glBegin(GL\_POLYGON);// stem shadow

glColor3ub (27, 92, 24);

glVertex2f(58.0f , 200.0f);

glVertex2f(52.0f , 200.0f);

glVertex2f(42.0f , 174.0f);

glVertex2f(42.0f , 170.0f);

glEnd();

glPushMatrix();

glTranslatef(55.0f, 305.0f, 0.0f);

glRotatef(angle1, 0.0f, 0.0f, 1.0f);

glBegin(GL\_TRIANGLES);//top fan

glColor3ub (128,128,128);

glVertex2f(-2.0f , 0.0f);

glVertex2f(2.0f , 0.0f);

glVertex2f(0.0f , 35.0f);

glEnd();

glBegin(GL\_TRIANGLES);// left fan

glVertex2f(-2.5f , 0.5f);

glVertex2f(1.0f , -2.5f);

glVertex2f(-30.0f , -18.0f);

glEnd();

glBegin(GL\_TRIANGLES);//right fan

glVertex2f(2.5f , 0.5f);

glVertex2f(-1.0f , -2.5f);

glVertex2f(30.0f , -15.0f);

glEnd();

glPopMatrix();

int i;

float x=55.0f; float y=305.0f; float radius =2.5f;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(192,192,192);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

}

float angle2= 0.0f;

void windmill2(){ ///Shakhawat's windmill

glBegin(GL\_POLYGON);// stem

glColor3ub(192,192,192);

glVertex2f(457.0f , 200.0f);

glVertex2f(452.0f , 200.0f);

glVertex2f(453.0f , 306.0f);

glVertex2f(456.0f , 306.0f);

glEnd();

glBegin(GL\_POLYGON);// stem shadow

glColor3ub (27, 92, 24);

glVertex2f(458.0f , 200.0f);

glVertex2f(452.0f , 200.0f);

glVertex2f(500.0f , 166.0f);

glVertex2f(500.0f , 170.0f);

glEnd();

glPushMatrix();

glTranslatef(455.0f, 305.0f, 0.0f);

glRotatef(angle1, 0.0f, 0.0f, 1.0f);

glBegin(GL\_TRIANGLES);//fans

glColor3ub (128,128,128);

glVertex2f(-2.0f , 0.0f);

glVertex2f(2.0f , 0.0f);

glVertex2f(0.0f , 35.0f);

glEnd();

glBegin(GL\_TRIANGLES);//fans

glVertex2f(-2.5f , 0.5f);

glVertex2f(1.0f , -2.5f);

glVertex2f(-30.0f , -18.0f);

glEnd();

glBegin(GL\_TRIANGLES);//fans

glVertex2f(2.5f , 0.5f);

glVertex2f(-1.0f , -2.5f);

glVertex2f(30.0f , -15.0f);

glEnd();

glPopMatrix();

int i;

float x=455.0f; float y=305.0f; float radius =2.5f;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(220,220,220);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

}

void windmillTimer(int value){

glutPostRedisplay();

glutTimerFunc(10, windmillTimer, 0);

angle1 += 1.0;

}

void train(){ //Fahim

glBegin(GL\_POLYGON);//engine

glColor3ub(255,255,255);

glVertex2f(train\_x\_pos+90.0f, 160.0f);

glVertex2f(train\_x\_pos+120.0f , 160.0f);

glVertex2f(train\_x\_pos+135.0f , 134.0f);

glVertex2f(train\_x\_pos+90.0f , 134.0f);

glEnd();

glBegin(GL\_POLYGON);//engine window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+90.0f, 150.0f);

glVertex2f(train\_x\_pos+124.0f , 150.0f);

glVertex2f(train\_x\_pos+119.0f , 158.0f);

glVertex2f(train\_x\_pos+90.0f , 158.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer1

glColor3ub(255,255,255);

glVertex2f(train\_x\_pos+51.0f, 160.0f);

glVertex2f(train\_x\_pos+89.0f , 160.0f);

glVertex2f(train\_x\_pos+89.0f , 134.0f);

glVertex2f(train\_x\_pos+51.0f , 134.0f);

glEnd();

glBegin(GL\_POLYGON);// window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+51.0f, 150.0f);

glVertex2f(train\_x\_pos+89.0f , 150.0f);

glVertex2f(train\_x\_pos+89.0f , 158.0f);

glVertex2f(train\_x\_pos+51.0f , 158.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer2

glColor3ub(255,255,255);

glVertex2f(train\_x\_pos+15.0f, 160.0f);

glVertex2f(train\_x\_pos+50.0f , 160.0f);

glVertex2f(train\_x\_pos+50.0f , 134.0f);

glVertex2f(train\_x\_pos+15.0f , 134.0f);

glEnd();

glBegin(GL\_POLYGON);// window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+16.0f, 150.0f);

glVertex2f(train\_x\_pos+50.0f , 150.0f);

glVertex2f(train\_x\_pos+50.0f , 158.0f);

glVertex2f(train\_x\_pos+16.0f , 158.0f);

glEnd();

}

int trainStatus = 1;

float trainspeed = 1.5f;

void TrainTimer (int value){

glutPostRedisplay();

glutTimerFunc(10, TrainTimer, 0);

if (trainStatus==1){

if (train\_x\_pos < 600)

train\_x\_pos += trainspeed;

else

train\_x\_pos = -150;

}

}

void railline1(){

glBegin(GL\_POLYGON);//platform

glColor3ub(192,192,192);

glVertex2f(67.0f , 130.0f);

glVertex2f(71.0f , 140.0f);

glVertex2f(437.0f , 140.0f);

glVertex2f(441.0f , 130.0f);

glEnd();

glBegin(GL\_POLYGON);//platform left

glColor3ub (222,184,135);

glVertex2f(67.0f , 127.0f);

glVertex2f(71.0f , 140.0f);

glVertex2f(0.0f , 140.0f);

glVertex2f(0.0f , 127.0f);

glEnd();

glBegin(GL\_POLYGON);//platform right

glColor3ub(222,184,135);

glVertex2f(500.0f , 127.0f);

glVertex2f(500.0f , 140.0f);

glVertex2f(437.0f , 140.0f);

glVertex2f(441.0f , 127.0f);

glEnd();

glLineWidth(4.0);//track wooden plate

glBegin(GL\_LINES);

glColor3ub (0,0,0);

glVertex2f(20.0f , 131.0f);

glVertex2f(25.0f , 139.0f);

glVertex2f(40.0f , 131.0f);

glVertex2f(45.0f , 139.0f);

glVertex2f(60.0f , 131.0f);

glVertex2f(65.0f , 139.0f);

glVertex2f(80.0f , 131.0f);

glVertex2f(85.0f , 139.0f);

glVertex2f(103.0f , 131.0f);

glVertex2f(108.0f , 139.0f);

glVertex2f(120.0f , 131.0f);

glVertex2f(124.0f , 139.0f);

glVertex2f(140.0f , 131.0f);

glVertex2f(144.0f , 139.0f);

glVertex2f(160.0f , 131.0f);

glVertex2f(163.0f , 139.0f);

glVertex2f(180.0f , 131.0f);

glVertex2f(182.0f , 139.0f);

glVertex2f(200.0f , 131.0f);

glVertex2f(201.0f , 139.0f);

glVertex2f(220.0f , 131.0f);

glVertex2f(220.0f , 139.0f);

glVertex2f(240.0f , 131.0f);

glVertex2f(240.0f , 139.0f);

glVertex2f(260.0f , 131.0f);

glVertex2f(260.0f , 139.0f);

glVertex2f(280.0f , 131.0f);

glVertex2f(280.0f , 139.0f);

glVertex2f(300.0f , 131.0f);

glVertex2f(299.0f , 139.0f);

glVertex2f(320.0f , 131.0f);

glVertex2f(318.0f , 139.0f);

glVertex2f(340.0f , 131.0f);

glVertex2f(338.0f , 139.0f);

glVertex2f(360.0f , 131.0f);

glVertex2f(357.0f , 139.0f);

glVertex2f(380.0f , 131.0f);

glVertex2f(376.0f , 139.0f);

glVertex2f(400.0f , 131.0f);

glVertex2f(396.0f , 139.0f);

glVertex2f(420.0f , 131.0f);

glVertex2f(416.0f , 139.0f);

glVertex2f(440.0f , 131.0f);

glVertex2f(435.0f , 139.0f);

glVertex2f(460.0f , 131.0f);

glVertex2f(455.0f , 139.0f);

glVertex2f(480.0f , 131.0f);

glVertex2f(475.0f , 139.0f);

glEnd();

glLineWidth(2.0);//tracks

glBegin(GL\_LINES);

glColor3ub (255,255,255);

glVertex2f(0.0f , 132.0f);

glVertex2f(500.0f , 132.0f);

glVertex2f(0.0f , 138.0f);

glVertex2f(500.0f , 138.0f);

glEnd();

}

void railline2(){

glLineWidth(30.0);

glBegin(GL\_LINES);

glColor3ub (105,105,105);

glVertex2f(67.0f , 128.0f);//platform base

glVertex2f(441.0f , 128.0f);

glVertex2f(160.0f , 122.0f);//left pillar

glVertex2f(180.0f , 122.0f);

glVertex2f(160.0f , 118.0f);

glVertex2f(180.0f , 118.0f);

glVertex2f(167.0f , 124.0f);

glVertex2f(167.0f , 100.0f);

glVertex2f(170.0f , 124.0f);

glVertex2f(170.0f , 100.0f);

glVertex2f(173.0f , 124.0f);

glVertex2f(173.0f , 100.0f);

glVertex2f(310.0f , 122.0f);//right pillar

glVertex2f(330.0f , 122.0f);

glVertex2f(310.0f , 118.0f);

glVertex2f(330.0f , 118.0f);

glVertex2f(317.0f , 124.0f);

glVertex2f(317.0f , 100.0f);

glVertex2f(320.0f , 124.0f);

glVertex2f(320.0f , 100.0f);

glVertex2f(323.0f , 124.0f);

glVertex2f(323.0f , 100.0f);

glVertex2f(100.0f , 130.0f);//steel pillars

glVertex2f(120.0f , 170.0f);

glVertex2f(118.0f , 170.0f);

glVertex2f(222.0f , 170.0f);

glVertex2f(220.0f , 170.0f);

glVertex2f(240.0f , 130.0f);

glVertex2f(250.0f , 130.0f);//steel pillars

glVertex2f(270.0f , 170.0f);

glVertex2f(268.0f , 170.0f);

glVertex2f(373.0f , 170.0f);

glVertex2f(370.0f , 170.0f);

glVertex2f(390.0f , 130.0f);

glEnd();

}

void raillineShadow(int x,int y,int z) {

glBegin(GL\_POLYGON);//platform

glColor3ub(x,y,z);

glVertex2f(50.0f , 80.0f);

glVertex2f(50.0f , 90.0f);

glVertex2f(447.0f , 90.0f);

glVertex2f(447.0f , 80.0f);

glEnd();

glBegin(GL\_POLYGON);//pillar 1

//glColor3ub(192,192,192);

glVertex2f(170.0f , 85.0f);

glVertex2f(165.0f , 100.0f);

glVertex2f(175.0f , 100.0f);

glVertex2f(180.0f , 85.0f);

glEnd();

glBegin(GL\_POLYGON);//pillar 2

//glColor3ub(192,192,192);

glVertex2f(322.0f , 85.0f);

glVertex2f(315.0f , 100.0f);

glVertex2f(325.0f , 100.0f);

glVertex2f(332.0f , 85.0f);

glEnd();

glLineWidth(20.0);//steel pillars

glBegin(GL\_LINES);

//glColor3ub(192,192,192);

glVertex2f(116.0f , 82.0f);

glVertex2f(140.0f , 60.0f);

glVertex2f(140.0f , 60.0f);

glVertex2f(240.0f , 60.0f);

glVertex2f(239.0f , 59.0f);

glVertex2f(255.0f , 82.0f);

glVertex2f(265.0f , 82.0f);//

glVertex2f(290.0f , 60.0f);

glVertex2f(290.0f , 60.0f);

glVertex2f(390.0f , 60.0f);

glVertex2f(389.0f , 59.0f);

glVertex2f(405.0f , 82.0f);

glEnd();

}

void trainShadow(){

glBegin(GL\_POLYGON);//train engine

glColor3ub(220,220,220);

glVertex2f(train\_x\_pos+110.0f , 80.0f);

glVertex2f(train\_x\_pos+160.0f , 80.0f);

glVertex2f(train\_x\_pos+150.0f , 70.0f);

glVertex2f(train\_x\_pos+112.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+111.5f , 75.0f);

glVertex2f(train\_x\_pos+154.5f , 75.0f);

glVertex2f(train\_x\_pos+149.5f , 71.0f);

glVertex2f(train\_x\_pos+112.5f , 71.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer 1

glColor3ub(220,220,220);

glVertex2f(train\_x\_pos+70.0f , 80.0f);

glVertex2f(train\_x\_pos+109.0f, 80.0f);

glVertex2f(train\_x\_pos+111.0f, 70.0f);

glVertex2f(train\_x\_pos+72.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+71.5f , 75.0f);

glVertex2f(train\_x\_pos+108.5f , 75.0f);

glVertex2f(train\_x\_pos+110.5f , 71.0f);

glVertex2f(train\_x\_pos+72.5f , 71.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer 1

glColor3ub(220,220,220);

glVertex2f(train\_x\_pos+30.0f , 80.0f);

glVertex2f(train\_x\_pos+69.0f, 80.0f);

glVertex2f(train\_x\_pos+71.0f, 70.0f);

glVertex2f(train\_x\_pos+32.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+31.5f , 75.0f);

glVertex2f(train\_x\_pos+68.5f , 75.0f);

glVertex2f(train\_x\_pos+70.5f , 71.0f);

glVertex2f(train\_x\_pos+32.5f , 71.0f);

glEnd();

}

void nighttrainShadow(){ ///in what will be nighttrain shadow

glBegin(GL\_POLYGON);//train engine

glColor3ub(25, 132, 209);

glVertex2f(train\_x\_pos+110.0f , 80.0f);

glVertex2f(train\_x\_pos+160.0f , 80.0f);

glVertex2f(train\_x\_pos+150.0f , 70.0f);

glVertex2f(train\_x\_pos+112.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

//glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+111.5f , 75.0f);

glVertex2f(train\_x\_pos+154.5f , 75.0f);

glVertex2f(train\_x\_pos+149.5f , 71.0f);

glVertex2f(train\_x\_pos+112.5f , 71.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer 1

//glColor3ub(220,220,220);

glVertex2f(train\_x\_pos+70.0f , 80.0f);

glVertex2f(train\_x\_pos+109.0f, 80.0f);

glVertex2f(train\_x\_pos+111.0f, 70.0f);

glVertex2f(train\_x\_pos+72.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

//glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+71.5f , 75.0f);

glVertex2f(train\_x\_pos+108.5f , 75.0f);

glVertex2f(train\_x\_pos+110.5f , 71.0f);

glVertex2f(train\_x\_pos+72.5f , 71.0f);

glEnd();

glBegin(GL\_POLYGON);//trailer 1

//glColor3ub(220,220,220);

glVertex2f(train\_x\_pos+30.0f , 80.0f);

glVertex2f(train\_x\_pos+69.0f, 80.0f);

glVertex2f(train\_x\_pos+71.0f, 70.0f);

glVertex2f(train\_x\_pos+32.0f , 70.0f);

glEnd();

glBegin(GL\_POLYGON);//window

//glColor3ub(0,0,0);

glVertex2f(train\_x\_pos+31.5f , 75.0f);

glVertex2f(train\_x\_pos+68.5f , 75.0f);

glVertex2f(train\_x\_pos+70.5f , 71.0f);

glVertex2f(train\_x\_pos+32.5f , 71.0f);

glEnd();

}

void tunnel1()//infront of train

{

glBegin(GL\_POLYGON);//tunnel body

glColor3ub(255,255,255);

glVertex2f(0.0f , 185.0f);

glVertex2f(0.0f , 114.0f);

glVertex2f(25.5f , 118.0f);

glVertex2f(25.5f , 168.0f);

glVertex2f(41.5f , 185.0f);

glEnd();

glBegin(GL\_TRIANGLES);//mountain

glColor3ub (139,69,19);

glVertex2f(0.0f , 114.0f);

glVertex2f(25.5f , 118.0f);

glVertex2f(0.0f , 230.0f);

glEnd();

glBegin(GL\_TRIANGLES);//mountain

glColor3ub(160,82,45);

glVertex2f(30.0f , 185.0f);

glVertex2f(13.0f , 170.0f);

glVertex2f(0.0f , 230.0f);

glEnd();

glBegin(GL\_POLYGON);//tunnel outward

glColor3ub(205,205,205);

glVertex2f(25.5f , 168.0f);

glVertex2f(35.5f , 178.0f);

glVertex2f(35.5f , 133.0f);

glVertex2f(25.5f , 118.0f);

glEnd();

glBegin(GL\_POLYGON);//tunnel

glColor3ub(0,0,0);

glVertex2f(30.5f , 155.0f);

glVertex2f(35.5f , 174.0f);

glVertex2f(35.5f , 133.0f);

glVertex2f(30.5f , 125.0f);

glEnd();

}

void tunnel2()// back of the train

{

glBegin(GL\_POLYGON);//tunnel outward

glColor3ub(205,205,205);

glVertex2f(35.5f , 178.0f);

glVertex2f(41.5f , 185.0f);

glVertex2f(41.5f , 147.0f);

glVertex2f(30.5f , 124.0f);

glEnd();

glBegin(GL\_POLYGON);//tunnel

glColor3ub(0,0,0);

glVertex2f(35.5f , 174.0f);

glVertex2f(38.5f , 165.0f);

glVertex2f(38.5f , 140.0f);

glVertex2f(30.5f , 124.0f);

glEnd();

}

void ferry(){

glBegin(GL\_POLYGON);//bottom

glColor3ub(0,0,0);

glVertex2f(ferry\_x\_pos+100.0f , 40.0f);

glVertex2f(ferry\_x\_pos+100.0f , 30.0f);

glVertex2f(ferry\_x\_pos+95.0f , 25.0f);

glVertex2f(ferry\_x\_pos-5.0f , 25.0f);

glVertex2f(ferry\_x\_pos-10, 30.0f);

glVertex2f(ferry\_x\_pos-10, 40.0f);

glEnd();

glBegin(GL\_POLYGON);//floor

glColor3ub(255,255,255);

glVertex2f(ferry\_x\_pos-10, 40.0f);

glVertex2f(ferry\_x\_pos-7, 43.0f);

glVertex2f(ferry\_x\_pos+50.0f , 43.0f);

glVertex2f(ferry\_x\_pos+50.0f , 40.0f);

glEnd();

glBegin(GL\_POLYGON);//top

glColor3ub(255,215,0);

glVertex2f(ferry\_x\_pos+50.0f , 40.0f);

glVertex2f(ferry\_x\_pos+50.0f , 60.0f);

glVertex2f(ferry\_x\_pos+98.0f , 60.0f);

glVertex2f(ferry\_x\_pos+98.0f , 40.0f);

glEnd();

glBegin(GL\_POLYGON);//top roof

glColor3ub(255,255,0);

glVertex2f(ferry\_x\_pos+50.0f , 60.0f);

glVertex2f(ferry\_x\_pos+55.0f , 65.0f);

glVertex2f(ferry\_x\_pos+93.0f , 65.0f);

glVertex2f(ferry\_x\_pos+98.0f , 60.0f);

glEnd();

glBegin(GL\_POLYGON);//window1

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+55.0f , 50.0f);

glVertex2f(ferry\_x\_pos+55.0f , 58.0f);

glVertex2f(ferry\_x\_pos+65.0f , 58.0f);

glVertex2f(ferry\_x\_pos+65.0f , 50.0f);

glEnd();

glBegin(GL\_POLYGON);//window2

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+70.0f , 50.0f);

glVertex2f(ferry\_x\_pos+70.0f , 58.0f);

glVertex2f(ferry\_x\_pos+80.0f , 58.0f);

glVertex2f(ferry\_x\_pos+80.0f , 50.0f);

glEnd();

glBegin(GL\_POLYGON);//window3

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+85.0f , 50.0f);

glVertex2f(ferry\_x\_pos+85.0f , 58.0f);

glVertex2f(ferry\_x\_pos+95.0f , 58.0f);

glVertex2f(ferry\_x\_pos+95.0f , 50.0f);

glEnd();

glLineWidth(4.0);

glBegin(GL\_LINES);//railing

glColor3ub(0,0,0);

glVertex2f(ferry\_x\_pos+5.0f , 40.0f);

glVertex2f(ferry\_x\_pos+5.0f , 50.0f);

glVertex2f(ferry\_x\_pos+5.0f , 50.0f);

glVertex2f(ferry\_x\_pos+45.0f , 50.0f);

glVertex2f(ferry\_x\_pos+45.0f , 50.0f);

glVertex2f(ferry\_x\_pos+45.0f , 40.0f);

glEnd();

glBegin(GL\_POLYGON);//flag

glColor3ub(0,128,0);

glVertex2f(flag\_x\_pos-20.0f , 80.0f);

glVertex2f(flag\_x\_pos-20.0f , 95.0f);

glVertex2f(flag\_x\_pos+5.0f , 95.0f);

glVertex2f(flag\_x\_pos+5.0f , 80.0f);

glEnd();

glLineWidth(2.0);

glBegin(GL\_LINES);//flag pole

glColor3ub(0,0,0);

glVertex2f(ferry\_x\_pos+5.0f , 40.0f);

glVertex2f(ferry\_x\_pos+5.0f , 95.0f);

glEnd();

int i;

float x=flag\_x\_pos-5.0; float y=88.0; float radius =4;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(255, 0, 0);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

glFlush();

}

void ferryCarShadow(){

glBegin(GL\_POLYGON);//ferry shadow

glColor3ub(105,105,105);

glVertex2f(ferry\_x\_pos-10, 15.0f);

glVertex2f(ferry\_x\_pos, 23.0f);

glVertex2f(ferry\_x\_pos+10, 25.0f);

glVertex2f(ferry\_x\_pos+110.0f , 25.0f);

glVertex2f(ferry\_x\_pos+120, 23.0f);

glVertex2f(ferry\_x\_pos+130.0f , 15.0f);

glEnd();

glBegin(GL\_POLYGON);//car1 shadow

glColor3ub(255,153,51);

glVertex2f(car1\_x\_pos+25.f , 15.0f);

glVertex2f(car1\_x\_pos+27.f , 10.0f);

glVertex2f(car1\_x\_pos-2, 10.0f);

glVertex2f(car1\_x\_pos-5, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//car2 shadow

glColor3ub(220,20,60);

glVertex2f(car2\_x\_pos+35.f , 15.0f);

glVertex2f(car2\_x\_pos+37.f , 10.0f);

glVertex2f(car2\_x\_pos+5, 10.0f);

glVertex2f(car2\_x\_pos+2, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//top shadow

glColor3ub (255,250,205);

glVertex2f(ferry\_x\_pos+110.f , 15.0f);

glVertex2f(ferry\_x\_pos+115.f , 5.0f);

glVertex2f(ferry\_x\_pos+65, 5.0f);

glVertex2f(ferry\_x\_pos+60, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+109.f , 13.0f);

glVertex2f(ferry\_x\_pos+112.f , 7.0f);

glVertex2f(ferry\_x\_pos+103, 7.0f);

glVertex2f(ferry\_x\_pos+100, 13.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+92.f , 13.0f);

glVertex2f(ferry\_x\_pos+95.f , 7.0f);

glVertex2f(ferry\_x\_pos+86, 7.0f);

glVertex2f(ferry\_x\_pos+83, 13.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

glColor3ub(135,206,250);

glVertex2f(ferry\_x\_pos+75.f , 13.0f);

glVertex2f(ferry\_x\_pos+78.f , 7.0f);

glVertex2f(ferry\_x\_pos+68, 7.0f);

glVertex2f(ferry\_x\_pos+65, 13.0f);

glEnd();

glLineWidth(2.0);//flag pole shadow

glBegin(GL\_LINES);

glColor3ub(0,0,0);

glVertex2f(ferry\_x\_pos+10.0f, 15.0f);

glVertex2f(ferry\_x\_pos+15.0f, 0.0f);

glEnd();

}

void nightferryCarShadow(){///in night what will be ferry car shadow color

glBegin(GL\_POLYGON);//ferry shadow

glColor3ub(25, 132, 209);

glVertex2f(ferry\_x\_pos-10, 15.0f);

glVertex2f(ferry\_x\_pos, 23.0f);

glVertex2f(ferry\_x\_pos+10, 25.0f);

glVertex2f(ferry\_x\_pos+110.0f , 25.0f);

glVertex2f(ferry\_x\_pos+120, 23.0f);

glVertex2f(ferry\_x\_pos+130.0f , 15.0f);

glEnd();

glBegin(GL\_POLYGON);//car1 shadow

//glColor3ub(25, 132, 209);

glVertex2f(car1\_x\_pos+25.f , 15.0f);

glVertex2f(car1\_x\_pos+27.f , 10.0f);

glVertex2f(car1\_x\_pos-2, 10.0f);

glVertex2f(car1\_x\_pos-5, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//car2 shadow

//glColor3ub(25, 132, 209);

glVertex2f(car2\_x\_pos+35.f , 15.0f);

glVertex2f(car2\_x\_pos+37.f , 10.0f);

glVertex2f(car2\_x\_pos+5, 10.0f);

glVertex2f(car2\_x\_pos+2, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//top shadow

//glColor3ub (25, 132, 209);

glVertex2f(ferry\_x\_pos+110.f , 15.0f);

glVertex2f(ferry\_x\_pos+115.f , 5.0f);

glVertex2f(ferry\_x\_pos+65, 5.0f);

glVertex2f(ferry\_x\_pos+60, 15.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

//glColor3ub(25, 132, 209);

glVertex2f(ferry\_x\_pos+109.f , 13.0f);

glVertex2f(ferry\_x\_pos+112.f , 7.0f);

glVertex2f(ferry\_x\_pos+103, 7.0f);

glVertex2f(ferry\_x\_pos+100, 13.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

//glColor3ub(25, 132, 209);

glVertex2f(ferry\_x\_pos+92.f , 13.0f);

glVertex2f(ferry\_x\_pos+95.f , 7.0f);

glVertex2f(ferry\_x\_pos+86, 7.0f);

glVertex2f(ferry\_x\_pos+83, 13.0f);

glEnd();

glBegin(GL\_POLYGON);//top window shadow

//glColor3ub(25, 132, 209);

glVertex2f(ferry\_x\_pos+75.f , 13.0f);

glVertex2f(ferry\_x\_pos+78.f , 7.0f);

glVertex2f(ferry\_x\_pos+68, 7.0f);

glVertex2f(ferry\_x\_pos+65, 13.0f);

glEnd();

glLineWidth(2.0);//flag pole shadow

glBegin(GL\_LINES);

glColor3ub(0,0,0);

glVertex2f(ferry\_x\_pos+10.0f, 15.0f);

glVertex2f(ferry\_x\_pos+15.0f, 0.0f);

glEnd();

}

void car1(){

glBegin(GL\_POLYGON);//body

glColor3ub(255,153,51);

glVertex2f(car1\_x\_pos+30.f , 55.0f);

glVertex2f(car1\_x\_pos+30.f , 45.0f);

glVertex2f(car1\_x\_pos-5, 45.0f);

glVertex2f(car1\_x\_pos-5, 55.0f);

glEnd();

glBegin(GL\_POLYGON);//top

glVertex2f(car1\_x\_pos+20.f , 62.0f);

glVertex2f(car1\_x\_pos+22.f , 55.0f);

glVertex2f(car1\_x\_pos+3, 55.0f);

glVertex2f(car1\_x\_pos+5, 62.0f);

glEnd();

glBegin(GL\_POLYGON);//window

glColor3ub(135,206,250);

glVertex2f(car1\_x\_pos+19.f , 61.0f);

glVertex2f(car1\_x\_pos+21.f , 55.0f);

glVertex2f(car1\_x\_pos+4, 55.0f);

glVertex2f(car1\_x\_pos+6, 61.0f);

glEnd();

//F wheel

int i;

float x=car1\_x\_pos+5.5f; float y=46.0; float radius1 =4.0;

int triangleAmount1 = 20;

float twicePi1 = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(0, 0, 0);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount1;i++) {

glVertex2f(

x + (radius1 \* cos(i \* twicePi1 / triangleAmount1)),

y + (radius1 \* sin(i \* twicePi1 / triangleAmount1))

);

}

glEnd();

//B wheel

int j;

float a=car1\_x\_pos+20.0f; float b=46.0; float radius2 =4.0;

int triangleAmount2 = 20;

float twicePi2 = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(0, 0, 0);

glVertex2f(a, b); // center of circle

for(j = 0; j <= triangleAmount2;j++) {

glVertex2f(

a + (radius2 \* cos(j \* twicePi2 / triangleAmount2)),

b + (radius2 \* sin(j \* twicePi2 / triangleAmount2))

);

}

glEnd();

glFlush();

}

void car2(){

glBegin(GL\_POLYGON);//body

glColor3ub(220,20,60);

glVertex2f(car2\_x\_pos+30.f , 55.0f);

glVertex2f(car2\_x\_pos+30.f , 45.0f);

glVertex2f(car2\_x\_pos-5, 45.0f);

glVertex2f(car2\_x\_pos-5, 55.0f);

glEnd();

glBegin(GL\_POLYGON);//top

glVertex2f(car2\_x\_pos+20.f , 62.0f);

glVertex2f(car2\_x\_pos+22.f , 55.0f);

glVertex2f(car2\_x\_pos+3, 55.0f);

glVertex2f(car2\_x\_pos+5, 62.0f);

glEnd();

glBegin(GL\_POLYGON);//window

glColor3ub(135,206,250);

glVertex2f(car2\_x\_pos+19.f , 61.0f);

glVertex2f(car2\_x\_pos+21.f , 55.0f);

glVertex2f(car2\_x\_pos+4, 55.0f);

glVertex2f(car2\_x\_pos+6, 61.0f);

glEnd();

//F wheel

int i;

float x=car2\_x\_pos+5.5f; float y=46.0; float radius1 =4.0;

int triangleAmount1 = 20;

float twicePi1 = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(0, 0, 0);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount1;i++) {

glVertex2f(

x + (radius1 \* cos(i \* twicePi1 / triangleAmount1)),

y + (radius1 \* sin(i \* twicePi1 / triangleAmount1))

);

}

glEnd();

//B wheel

int j;

float a=car2\_x\_pos+20.0f; float b=46.0; float radius2 =4.0;

int triangleAmount2 = 20;

float twicePi2 = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(0, 0, 0);

glVertex2f(a, b); // center of circle

for(j = 0; j <= triangleAmount2;j++) {

glVertex2f(

a + (radius2 \* cos(j \* twicePi2 / triangleAmount2)),

b + (radius2 \* sin(j \* twicePi2 / triangleAmount2))

);

}

glEnd();

glFlush();

}

float sun\_x\_pos=90.0f;

float sun\_y\_pos= 300.0f;

void sun()

{

int i;

float x=sun\_x\_pos; float y=sun\_y\_pos; float radius =20.0;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(255, 255, 0);

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

}

void sunTimer(int value){

glutPostRedisplay();

glutTimerFunc(10, sunTimer, 0);

if (sun\_y\_pos < 400.0f)

sun\_y\_pos += 1.5;

else

sun\_y\_pos = 400.0f;

}

void moon(int b,int n,int m)//In b,n,m will set the color3ub value-shihab

{

int i;

float x=sun\_x\_pos; float y=sun\_y\_pos; float radius =20.0;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(b, n, m);//b,n,m set the color value

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

}

void eidmoon(int b,int n,int m)//In b,n,m will set the color3ub value-shihab

{

int i;

float x=sun\_x\_pos-8; float y=sun\_y\_pos+9; float radius =20.0;

int triangleAmount = 20;

float twicePi = 2.0f \* PI;

glBegin(GL\_TRIANGLE\_FAN);

glColor3ub(b, n, m);//b,n,m set the color value

glVertex2f(x, y); // center of circle

for(i = 0; i <= triangleAmount;i++) {

glVertex2f(

x + (radius \* cos(i \* twicePi / triangleAmount)),

y + (radius \* sin(i \* twicePi / triangleAmount))

);

}

glEnd();

}

void river(int x,int y,int z){

glBegin(GL\_POLYGON);

glColor3ub(x,y,z);

glVertex2f(0.0f , 0.0f);

glVertex2f(500.0f , 0.0f);

glVertex2f(500.0f , 220.0f);

glVertex2f(0.0f , 220.0f);

glEnd();

}

void sky\_day(){

glBegin(GL\_POLYGON);

glColor3ub(135,206,250);

glVertex2f(0.0f , 220.0f);

glVertex2f(500.0f , 220.0f);

glVertex2f(500.0f , 500.0f);

glVertex2f(0.0f , 500.0f);

glEnd();

}

void cityScape(){ //cityshape without ferriswheel

glBegin(GL\_POLYGON);//city bed

glColor3ub(176,196,222);

glVertex2f(0.0f , 220.0f);

glVertex2f(500.0f , 220.0f);

glVertex2f(500.0f , 225.0f);

glVertex2f(0.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//small buildings 8 left

glColor3ub(245,245,245);

glVertex2f(190.0f , 225.0f);

glVertex2f(170.0f , 225.0f);

glVertex2f(170.0f , 245.0f);

glVertex2f(190.0f , 245.0f);

glEnd();

glBegin(GL\_POLYGON);//small buildings 9 left

glColor3ub(245,245,245);

glVertex2f(170.0f , 225.0f);

glVertex2f(100.0f , 225.0f);

glVertex2f(100.0f , 236.0f);

glVertex2f(170.0f , 236.0f);

glEnd();

glBegin(GL\_POLYGON);//small buildings 10 right

glColor3ub(245,245,245);

glVertex2f(330.0f , 225.0f);

glVertex2f(310.0f , 225.0f);

glVertex2f(310.0f , 250.0f);

glVertex2f(330.0f , 250.0f);

glEnd();

glBegin(GL\_POLYGON);//small buildings 11 right

glColor3ub(245,245,245);

glVertex2f(370.0f , 225.0f);

glVertex2f(330.0f , 225.0f);

glVertex2f(330.0f , 236.0f);

glVertex2f(370.0f , 236.0f);

glEnd();

glBegin(GL\_POLYGON);//background shadow building

glColor3ub(220,220,220);

glVertex2f(315.0f , 225.0f);

glVertex2f(185.0f , 225.0f);

glVertex2f(185.0f , 260.0f);

glVertex2f(315.0f , 260.0f);

glEnd();

glBegin(GL\_POLYGON);//building 1 tallest

glColor3ub(211,211,211);

glVertex2f(245.0f , 225.0f);

glVertex2f(265.0f , 225.0f);

glVertex2f(265.0f , 315.0f);

glVertex2f(255.0f , 330.0f);

glVertex2f(245.0f , 315.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 1 border

glColor3ub (169,169,169);

glVertex2f(265.0f , 225.0f);

glVertex2f(265.0f , 315.0f);

glVertex2f(265.0f , 315.0f);

glVertex2f(255.0f , 330.0f);

glVertex2f(255.0f , 330.0f);

glVertex2f(245.0f , 315.0f);

glVertex2f(245.0f , 315.0f);

glVertex2f(245.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 2

glColor3ub(211,211,211);

glVertex2f(300.0f , 225.0f);

glVertex2f(310.0f , 225.0f);

glVertex2f(310.0f , 270.0f);

glVertex2f(300.0f , 270.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 2 border

glColor3ub (169,169,169);

glVertex2f(310.0f , 225.0f);

glVertex2f(310.0f , 270.0f);

glVertex2f(310.0f , 270.0f);

glVertex2f(300.0f , 270.0f);

glVertex2f(300.0f , 270.0f);

glVertex2f(300.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 3

glColor3ub(211,211,211);

glVertex2f(190.0f , 225.0f);

glVertex2f(205.0f , 225.0f);

glVertex2f(205.0f , 270.0f);

glVertex2f(190.0f , 270.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 3 border

glColor3ub (169,169,169);

glVertex2f(205.0f , 225.0f);

glVertex2f(205.0f , 270.0f);

glVertex2f(205.0f , 270.0f);

glVertex2f(190.0f , 270.0f);

glVertex2f(190.0f , 270.0f);

glVertex2f(190.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 4 tall right

glColor3ub(211,211,211);

glVertex2f(295.0f , 225.0f);

glVertex2f(280.0f , 225.0f);

glVertex2f(280.0f , 310.0f);

glVertex2f(295.0f , 310.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 4 border

glColor3ub (169,169,169);

glVertex2f(280.0f , 225.0f);

glVertex2f(280.0f , 310.0f);

glVertex2f(280.0f , 310.0f);

glVertex2f(295.0f , 310.0f);

glVertex2f(295.0f , 310.0f);

glVertex2f(295.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 5 tall left

glColor3ub(211,211,211);

glVertex2f(230.0f , 225.0f);

glVertex2f(210.0f , 225.0f);

glVertex2f(210.0f , 300.0f);

glVertex2f(230.0f , 300.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 5 border

glColor3ub (169,169,169);

glVertex2f(210.0f , 225.0f);

glVertex2f(210.0f , 300.0f);

glVertex2f(210.0f , 300.0f);

glVertex2f(230.0f , 300.0f);

glVertex2f(230.0f , 300.0f);

glVertex2f(230.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 6

glColor3ub(211,211,211);

glVertex2f(245.0f , 225.0f);

glVertex2f(233.0f , 225.0f);

glVertex2f(233.0f , 280.0f);

glVertex2f(245.0f , 280.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 6 border

glColor3ub (169,169,169);

glVertex2f(233.0f , 225.0f);

glVertex2f(233.0f , 280.0f);

glVertex2f(233.0f , 280.0f);

glVertex2f(245.0f , 280.0f);

glVertex2f(245.0f , 280.0f);

glVertex2f(245.0f , 225.0f);

glEnd();

glBegin(GL\_POLYGON);//building 7

glColor3ub(211,211,211);

glVertex2f(280.0f , 225.0f);

glVertex2f(268.0f , 225.0f);

glVertex2f(268.0f , 280.0f);

glVertex2f(280.0f , 280.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);//building 7 border

glColor3ub (169,169,169);

glVertex2f(268.0f , 225.0f);

glVertex2f(268.0f , 280.0f);

glVertex2f(268.0f , 280.0f);

glVertex2f(280.0f , 280.0f);

glVertex2f(280.0f , 280.0f);

glVertex2f(280.0f , 225.0f);

glEnd();

}

void buildingWindows(int x, int y, int z) { ///Fahim's last-windowshape

glLineWidth(8.0);

glBegin(GL\_LINES);//building 1 tallest

glColor3ub(x,y,z);

glVertex2f(250.0f , 235.0f);//building 1 tallest

glVertex2f(250.0f , 230.0f);

glVertex2f(255.0f , 230.0f);

glVertex2f(255.0f , 235.0f);

glVertex2f(260.0f , 235.0f);

glVertex2f(260.0f , 230.0f);

glVertex2f(250.0f , 245.0f);

glVertex2f(250.0f , 240.0f);

glVertex2f(255.0f , 240.0f);

glVertex2f(255.0f , 245.0f);

glVertex2f(260.0f , 245.0f);

glVertex2f(260.0f , 240.0f);

glVertex2f(250.0f , 255.0f);//building 1 tallest

glVertex2f(250.0f , 250.0f);

glVertex2f(255.0f , 250.0f);

glVertex2f(255.0f , 255.0f);

glVertex2f(260.0f , 255.0f);

glVertex2f(260.0f , 250.0f);

glVertex2f(250.0f , 265.0f);//building 1 tallest

glVertex2f(250.0f , 260.0f);

glVertex2f(255.0f , 260.0f);

glVertex2f(255.0f , 265.0f);

glVertex2f(260.0f , 265.0f);

glVertex2f(260.0f , 260.0f);

glVertex2f(250.0f , 275.0f);//building 1 tallest

glVertex2f(250.0f , 270.0f);

glVertex2f(255.0f , 270.0f);

glVertex2f(255.0f , 275.0f);

glVertex2f(260.0f , 275.0f);

glVertex2f(260.0f , 270.0f);

glVertex2f(250.0f , 285.0f);//building 1 tallest

glVertex2f(250.0f , 280.0f);

glVertex2f(255.0f , 280.0f);

glVertex2f(255.0f , 285.0f);

glVertex2f(260.0f , 285.0f);

glVertex2f(260.0f , 280.0f);

glVertex2f(250.0f , 295.0f);//building 1 tallest

glVertex2f(250.0f , 290.0f);

glVertex2f(255.0f , 290.0f);

glVertex2f(255.0f , 295.0f);

glVertex2f(260.0f , 295.0f);

glVertex2f(260.0f , 290.0f);

glVertex2f(250.0f , 305.0f);//building 1 tallest

glVertex2f(250.0f , 300.0f);

glVertex2f(255.0f , 300.0f);

glVertex2f(255.0f , 305.0f);

glVertex2f(260.0f , 305.0f);

glVertex2f(260.0f , 300.0f);

glVertex2f(281.0f , 300.0f);//building 2nd tallest

glVertex2f(294.0f , 300.0f);

glVertex2f(281.0f , 290.0f);

glVertex2f(294.0f , 290.0f);

glVertex2f(281.0f , 280.0f);

glVertex2f(294.0f , 280.0f);

glVertex2f(281.0f , 270.0f);

glVertex2f(294.0f , 270.0f);

glVertex2f(281.0f , 260.0f);

glVertex2f(294.0f , 260.0f);

glVertex2f(281.0f , 250.0f);

glVertex2f(294.0f , 250.0f);

glVertex2f(281.0f , 240.0f);

glVertex2f(294.0f , 240.0f);

glVertex2f(281.0f , 230.0f);

glVertex2f(294.0f , 230.0f);

glVertex2f(211.0f , 290.0f);//building 3nd tallest

glVertex2f(229.0f , 290.0f);

glVertex2f(211.0f , 280.0f);

glVertex2f(229.0f , 280.0f);

glVertex2f(211.0f , 270.0f);

glVertex2f(229.0f , 270.0f);

glVertex2f(211.0f , 260.0f);

glVertex2f(229.0f , 260.0f);

glVertex2f(211.0f , 250.0f);

glVertex2f(229.0f , 250.0f);

glVertex2f(211.0f , 240.0f);

glVertex2f(229.0f , 240.0f);

glVertex2f(211.0f , 230.0f);

glVertex2f(229.0f , 230.0f);

glVertex2f(234.0f , 275.0f);//building 4th largest left er ta

glVertex2f(244.0f , 275.0f);

glVertex2f(234.0f , 265.0f);

glVertex2f(244.0f , 265.0f);

glVertex2f(234.0f , 255.0f);

glVertex2f(244.0f , 255.0f);

glVertex2f(234.0f , 245.0f);

glVertex2f(244.0f , 245.0f);

glVertex2f(234.0f , 235.0f);

glVertex2f(244.0f , 235.0f);

glVertex2f(269.0f , 275.0f);//building 4th largest right er ta

glVertex2f(279.0f , 275.0f);

glVertex2f(269.0f , 265.0f);

glVertex2f(279.0f , 265.0f);

glVertex2f(269.0f , 255.0f);

glVertex2f(279.0f , 255.0f);

glVertex2f(269.0f , 245.0f);

glVertex2f(279.0f , 245.0f);

glVertex2f(269.0f , 235.0f);

glVertex2f(279.0f , 235.0f);

glVertex2f(301.0f , 265.0f);//building 5th largest right er ta

glVertex2f(309.0f , 265.0f);

glVertex2f(301.0f , 255.0f);

glVertex2f(309.0f , 255.0f);

glVertex2f(301.0f , 245.0f);

glVertex2f(309.0f , 245.0f);

glVertex2f(301.0f , 235.0f);

glVertex2f(309.0f , 235.0f);

glVertex2f(191.0f , 265.0f);//building 5th largest left er ta

glVertex2f(204.0f , 265.0f);

glVertex2f(191.0f , 255.0f);

glVertex2f(204.0f , 255.0f);

glVertex2f(191.0f , 245.0f);

glVertex2f(204.0f , 245.0f);

glVertex2f(191.0f , 235.0f);

glVertex2f(204.0f , 235.0f);

glEnd();

}

float fwangle= 0.0f;

void ferrisWheel(){ ///Nazmul's ferris wheel

glPushMatrix();

glTranslatef(310.0f, 260.0f, 0.0f);

glLineWidth(3.0);

glBegin(GL\_LINES);// stand

glColor3ub(0,0,0);

glVertex2f(0.0f , 0.0f);

glVertex2f(-15.0f , -36.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(15.0f , -36.0f);

glEnd();

glRotatef(-fwangle, 0.0f, 0.0f, 1.0f );//for rotate ferris wheel

glBegin(GL\_LINES);

glColor3ub(0, 247, 255);

glVertex2f(0.0f , 0.0f);

glVertex2f(-9.0f , 25.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(9.0f , 25.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(25.0f , 10.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(-25.0f , 10.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(-9.0f , -25.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(-25.0f , -10.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(25.0f , -10.0f);

glVertex2f(0.0f , 0.0f);

glVertex2f(9.0f , -25.0f);

glEnd();

glBegin(GL\_POLYGON);// top bar

glColor3ub(255, 94, 250);

glVertex2f(9.0f , 23.0f);

glVertex2f(-9.0f , 23.0f);

glVertex2f(-9.0f , 25.0f);

glVertex2f(9.0f , 25.0f);

glEnd();

glBegin(GL\_POLYGON);// bottom bar

//glColor3ub(0,0,0);

glVertex2f(9.0f , -23.0f);

glVertex2f(-9.0f , -23.0f);

glVertex2f(-9.0f , -25.0f);

glVertex2f(9.0f , -25.0f);

glEnd();

glBegin(GL\_POLYGON);// right bar

//glColor3ub(0,0,0);

glVertex2f(25.0f , -10.0f);

glVertex2f(23.0f , -10.0f);

glVertex2f(23.0f , 10.0f);

glVertex2f(25.0f , 10.0f);

glEnd();

glBegin(GL\_POLYGON);// left bar

//glColor3ub(0,0,0);

glVertex2f(-25.0f , -10.0f);

glVertex2f(-23.0f , -10.0f);

glVertex2f(-23.0f , 10.0f);

glVertex2f(-25.0f , 10.0f);

glEnd();

glBegin(GL\_POLYGON);// top left bar

//glColor3ub(0,0,0);

glVertex2f(-9.0f , 23.0f);

glVertex2f(-9.0f , 25.0f);

glVertex2f(-25.0f , 10.0f);

glVertex2f(-23.0f , 10.0f);

glEnd();

glBegin(GL\_POLYGON);// top right bar

//glColor3ub(0,0,0);

glVertex2f(9.0f , 23.0f);

glVertex2f(9.0f , 25.0f);

glVertex2f(25.0f , 10.0f);

glVertex2f(23.0f , 10.0f);

glEnd();

glBegin(GL\_POLYGON);// bottom left bar

//glColor3ub(0,0,0);

glVertex2f(-9.0f , -23.0f);

glVertex2f(-9.0f , -25.0f);

glVertex2f(-25.0f , -10.0f);

glVertex2f(-23.0f , -10.0f);

glEnd();

glBegin(GL\_POLYGON);// bottom right bar

//glColor3ub(0,0,0);

glVertex2f(9.0f , -23.0f);

glVertex2f(9.0f , -25.0f);

glVertex2f(25.0f , -10.0f);

glVertex2f(23.0f , -10.0f);

glEnd();

glPopMatrix();

fwangle += 0.05f; //Ferris wheel rotate speed

}

void leftBank(){ //River bank-fahim

glBegin(GL\_TRIANGLES);

glColor3ub(60,179,113);

glVertex2f(0.0f , 0.0f);

glVertex2f(100.0f , 200.0f);

glVertex2f(0.0f , 200.0f);

glEnd();

glBegin(GL\_POLYGON);//road

glColor3ub(112,128,144);

glVertex2f(0.0f , 45.0f);

glVertex2f(25.0f , 45.0f);

glVertex2f(14.0f , 30.0f);

glVertex2f(0.0f , 30.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank

glColor3ub(60,179,113);

glVertex2f(26.0f , 53.0f);

glVertex2f(90.0f , 130.0f);

glVertex2f(90.0f , 160.0f);

glVertex2f(80.0f , 160.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank 2

glColor3ub(60,179,113);

glVertex2f(90.0f , 160.0f);

glVertex2f(80.0f , 160.0f);

glVertex2f(100.0f , 200.0f);

glVertex2f(120.0f , 200.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(0.0f , 0.0f);

glVertex2f(10.0f , 0.0f);

glVertex2f(35.0f , 55.0f);

glVertex2f(25.0f , 55.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(25.0f , 55.0f);

glVertex2f(35.0f , 55.0f);

glVertex2f(100.0f , 140.0f);

glVertex2f(90.0f , 140.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(90.0f , 160.0f);

glVertex2f(90.0f , 152.0f);

glVertex2f(125.0f , 200.0f);

glVertex2f(120.0f , 200.0f);

glEnd();

}

void rightBank(){ //riverbank-fahim

glBegin(GL\_TRIANGLES);

glColor3ub(60,179,113);

glVertex2f(500.0f , 200.0f);

glVertex2f(400.0f , 200.0f);

glVertex2f(500.0f , 0.0f);

glEnd();

glBegin(GL\_POLYGON);//road

glColor3ub(112,128,144);

glVertex2f(500.0f , 45.0f);

glVertex2f(475.0f , 45.0f);

glVertex2f(486.0f , 30.0f);

glVertex2f(500.0f , 30.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);

glColor3ub(255,255,255);

glVertex2f(500.0f , 37.0f);

glVertex2f(480.0f , 37.0f);

glEnd();

glLineWidth(30.0);

glBegin(GL\_LINES);//zigzag bank

glColor3ub(210,180,140);

glVertex2f(499.0f , 0.0f);

glVertex2f(474.0f , 50.0f);

glVertex2f(474.0f , 50.0f);

glVertex2f(409.0f , 128.0f);

glVertex2f(410.0f , 157.0f);

glVertex2f(379.0f , 198.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank

glColor3ub(60,179,113);

glVertex2f(474.0f , 53.0f);

glVertex2f(410.0f , 130.0f);

glVertex2f(410.0f , 160.0f);

glVertex2f(420.0f , 160.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank 2

glColor3ub(60,179,113);

glVertex2f(410.0f , 160.0f);

glVertex2f(420.0f , 160.0f);

glVertex2f(400.0f , 200.0f);

glVertex2f(380.0f , 200.0f);

glEnd();

}

void nightleftBank(){

glBegin(GL\_TRIANGLES);

glColor3ub(27, 92, 24);

glVertex2f(0.0f , 0.0f);

glVertex2f(100.0f , 200.0f);

glVertex2f(0.0f , 200.0f);

glEnd();

glBegin(GL\_POLYGON);//road

glColor3ub(112,128,144);

glVertex2f(0.0f , 45.0f);

glVertex2f(25.0f , 45.0f);

glVertex2f(14.0f , 30.0f);

glVertex2f(0.0f , 30.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank

glColor3ub(27, 92, 24);

glVertex2f(26.0f , 53.0f);

glVertex2f(90.0f , 130.0f);

glVertex2f(90.0f , 160.0f);

glVertex2f(80.0f , 160.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank 2

glColor3ub(27, 92, 24);

glVertex2f(90.0f , 160.0f);

glVertex2f(80.0f , 160.0f);

glVertex2f(100.0f , 200.0f);

glVertex2f(120.0f , 200.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(0.0f , 0.0f);

glVertex2f(10.0f , 0.0f);

glVertex2f(35.0f , 55.0f);

glVertex2f(25.0f , 55.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(25.0f , 55.0f);

glVertex2f(35.0f , 55.0f);

glVertex2f(100.0f , 140.0f);

glVertex2f(90.0f , 140.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank brown part

glColor3ub(210,180,140);

glVertex2f(90.0f , 160.0f);

glVertex2f(90.0f , 152.0f);

glVertex2f(125.0f , 200.0f);

glVertex2f(120.0f , 200.0f);

glEnd();

}

void nightrightBank(){

glBegin(GL\_TRIANGLES);

glColor3ub(27, 92, 24);

glVertex2f(500.0f , 200.0f);

glVertex2f(400.0f , 200.0f);

glVertex2f(500.0f , 0.0f);

glEnd();

glBegin(GL\_POLYGON);//road

glColor3ub(112,128,144);

glVertex2f(500.0f , 45.0f);

glVertex2f(475.0f , 45.0f);

glVertex2f(486.0f , 30.0f);

glVertex2f(500.0f , 30.0f);

glEnd();

glLineWidth(1.0);

glBegin(GL\_LINES);

glColor3ub(255,255,255);

glVertex2f(500.0f , 37.0f);

glVertex2f(480.0f , 37.0f);

glEnd();

glLineWidth(30.0);

glBegin(GL\_LINES);//zigzag bank

glColor3ub(210,180,140);

glVertex2f(499.0f , 0.0f);

glVertex2f(474.0f , 50.0f);

glVertex2f(474.0f , 50.0f);

glVertex2f(409.0f , 128.0f);

glVertex2f(410.0f , 157.0f);

glVertex2f(379.0f , 198.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank

glColor3ub(27, 92, 24);

glVertex2f(474.0f , 53.0f);

glVertex2f(410.0f , 130.0f);

glVertex2f(410.0f , 160.0f);

glVertex2f(420.0f , 160.0f);

glEnd();

glBegin(GL\_POLYGON);//zigzag bank 2

glColor3ub(27, 92, 24);

glVertex2f(410.0f , 160.0f);

glVertex2f(420.0f , 160.0f);

glVertex2f(400.0f , 200.0f);

glVertex2f(380.0f , 200.0f);

glEnd();

}

void mountain(){

glBegin(GL\_TRIANGLES);//left

glColor3ub(255,228,181);

glVertex2f(0.0f , 200.0f);

glVertex2f(180.0f , 200.0f);

glVertex2f(0.0f , 400.0f);

glEnd();

glBegin(GL\_TRIANGLES);//right

glColor3ub(255,228,181);

glVertex2f(500.0f , 200.0f);

glVertex2f(320.0f , 200.0f);

glVertex2f(500.0f , 400.0f);

glEnd();

}

void drawCloud(int i,int y,int z){ //shape of cloud-shihab

glPushMatrix();

glBegin(GL\_POLYGON);//cloud

glColor3ub(i,y,z);

glVertex2f(26.0f , 470.0f);

glVertex2f(70.0f , 470.0f);

glVertex2f(62.0f , 477.0f);

glVertex2f(31.0f , 477.0f);

glEnd();

glBegin(GL\_QUADS);//above polygon\_1st

// glColor3ub(255,255,255);

glVertex2f(36.0f , 470.0f);

glVertex2f(40.0f , 470.0f);

glVertex2f(40.0f , 484.0f);

glVertex2f(36.0f , 484.0f);

glEnd();

glBegin(GL\_QUADS);//above\_polygo\_2nd

//glColor3ub(255,255,255);

glVertex2f(40.0f , 470.0f);

glVertex2f(46.0f , 470.0f);

glVertex2f(46.0f , 489.0f);

glVertex2f(40.0f , 489.0f);

glEnd();

glBegin(GL\_QUADS);//below polygon

//glColor3ub(255,255,255);

glVertex2f(26.0f , 467.0f);

glVertex2f(70.0f , 467.0f);

glVertex2f(70.0f , 470.0f);

glVertex2f(26.0f , 470.0f);

glEnd();

glBegin(GL\_QUADS);//big-height

//glColor3ub(255,255,255);

glVertex2f(46.0f , 470.0f);

glVertex2f(50.0f , 470.0f);

glVertex2f(50.0f , 492.0f);

glVertex2f(46.0f , 492.0f);

glEnd();

glBegin(GL\_QUADS);//big-height\_right

//glColor3ub(255,255,255);

glVertex2f(50.0f , 470.0f);

glVertex2f(55.0f , 470.0f);

glVertex2f(55.0f , 486.0f);

glVertex2f(50.0f , 486.0f);

glEnd();

glBegin(GL\_QUADS);//big-height\_right\_right

// glColor3ub(255,255,255);

glVertex2f(55.0f , 470.0f);

glVertex2f(59.0f , 470.0f);

glVertex2f(59.0f , 482.0f);

glVertex2f(55.0f , 482.0f);

glEnd();

glPopMatrix();

}

void cloud(){ //first cloud at the top-shihab

glutPostRedisplay();

if (cloudStatus == 1)

{

cloud\_X += 0.03;

}

if (cloud\_X > 500)

{

cloud\_X = -50;

}

glPushMatrix();

glTranslatef(cloud\_X, -30.0, 0.0);

drawCloud(230, 240, 236);

glPopMatrix();

}

void cloud2(){ // second cloud at middle-shihab

glutPostRedisplay();

if (cloudStatus == 1)

{

cloud\_X2 += 0.035;

}

if (cloud\_X2>500)

{

cloud\_X2 = -120;

}

glPushMatrix();

glTranslatef(cloud\_X2 + 30.0, - 100.0, 0.0);

drawCloud(197, 209, 204);

glPopMatrix();

}

void cloud3() //Third cloud at bottom-shihab

{

glutPostRedisplay();

if (cloudStatus == 1)

{

cloud\_X3 += 0.04;

}

if (cloud\_X3>500)

{

cloud\_X3 = -100;

}

glPushMatrix();

glTranslatef(cloud\_X3 - 30.0, - 170, 0.0);

drawCloud(201, 221, 240);

glPopMatrix();

}

void Night(int value){ //night view, blacksky,waxing crescent moon,darkriver,field,static star,no reflection-shihab

if(night){

///skyblack

glBegin(GL\_POLYGON);//sky black

glColor3ub(21, 23, 22);

glVertex2f(0.0f , 220.0f);

glVertex2f(500.0f , 220.0f);

glVertex2f(500.0f , 500.0f);

glVertex2f(0.0f , 500.0f);

glEnd();//skyblackend

///skyblackend

///star

glBegin(GL\_TRIANGLES);//star-serial left to right

glColor3ub(255,255,255);

glVertex2f(30.0f , 410.0f);///1st star

glVertex2f(35.0f , 410.0f);

glVertex2f(33.0f , 415.0f);

glVertex2f(30.0f , 413.0f);

glVertex2f(35.0f , 413.0f);

glVertex2f(33.0f , 408.0f);

glVertex2f(80.0f , 430.0f);///2nd star

glVertex2f(86.0f , 430.0f);

glVertex2f(83.0f , 436.0f);

glVertex2f(80.0f , 434.0f);

glVertex2f(86.0f , 434.0f);

glVertex2f(83.0f , 428.0f);

glVertex2f(140.0f , 480.0f);///3rd star

glVertex2f(150.0f , 480.0f);

glVertex2f(145.0f , 487.0f);

glVertex2f(140.0f , 485.0f);

glVertex2f(150.0f , 485.0f);

glVertex2f(145.0f , 477.0f);

glVertex2f(190.0f , 410.0f);///4th star

glVertex2f(194.0f , 410.0f);

glVertex2f(192.0f , 415.0f);

glVertex2f(190.0f , 413.0f);

glVertex2f(194.0f , 413.0f);

glVertex2f(192.0f , 408.0f);

glVertex2f(250.0f , 400.0f);///5th star

glVertex2f(254.0f , 400.0f);

glVertex2f(252.0f , 405.0f);

glVertex2f(250.0f , 403.0f);

glVertex2f(254.0f , 403.0f);

glVertex2f(252.0f , 398.0f);

glVertex2f(310.0f , 440.0f);///6th star

glVertex2f(314.0f , 440.0f);

glVertex2f(312.0f , 445.0f);

glVertex2f(310.0f , 443.0f);

glVertex2f(314.0f , 443.0f);

glVertex2f(312.0f , 438.0f);

glVertex2f(350.0f , 410.0f);///7th star

glVertex2f(354.0f , 410.0f);

glVertex2f(352.0f , 415.0f);

glVertex2f(350.0f , 413.0f);

glVertex2f(354.0f , 413.0f);

glVertex2f(352.0f , 408.0f);

glVertex2f(450.0f , 450.0f);///8th star

glVertex2f(454.0f , 450.0f);

glVertex2f(452.0f , 455.0f);

glVertex2f(450.0f , 453.0f);

glVertex2f(454.0f , 453.0f);

glVertex2f(452.0f , 448.0f);

glEnd();///star end

///starend

nighttrainShadow();

raillineShadow(64, 224, 208);

nightferryCarShadow();

moon(240, 240, 240);//moon call

eidmoon(21, 23, 22);

river(39, 110, 204);//night river call

nightleftBank();

nightrightBank();

glutPostRedisplay();

glFlush();

}

}

void nightWindow(int value){ //night view

if (nightWindowColor){

buildingWindows(247, 228, 129);

}

}

void keyboard(unsigned char key, int x, int y)

{

switch (key) {

case 'd': //cloud start

cloudStatus = 1;

break;

case 'a': //cloud pause

cloudStatus = 0;

break;

case 'n': //night view start

night = true;

Night(\_nt);

nightWindowColor = true;

nightWindow(\_nwc);

break;

case 'b': //day view

night = false;

nightWindowColor = false;

break;

case 'q':

trainStatus = 0;

break;

case 'w':

trainStatus = 1;

break;

case 'e':

trainspeed += 0.5;

break;

case 'r':

if (trainspeed >= 1.0)

trainspeed += -0.5;

else

trainspeed = 0.5;

break;

default:

break;

}

}

void Display(void)

{

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

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

glPointSize(5.0);

sky\_day();

sun();

river(64,224,208);

raillineShadow(192,192,192);

trainShadow();

ferryCarShadow();

leftBank();

rightBank();

Night(\_nt);//to change object's function in night-have to set other function before night function

cloud();

cloud2();

cloud3();

cityScape();

buildingWindows(255, 255, 255);

nightWindow(\_nwc);//extra for nightmode

ferrisWheel();

mountain();

car1();

car2();

ferry();

railline1();

tunnel2();

train();

railline2();

tunnel1();

windmill1();

windmill2();

glutSwapBuffers();

}

void FerryTimer(int)

{

bool f=false, c1=false, c2=false;

glutPostRedisplay();

glutTimerFunc(10, FerryTimer, 0);

switch (state){

case 3 : if (car1\_x\_pos < 45)

car1\_x\_pos += 1.0;

else

{car1\_x\_pos += 0;

flag\_x\_pos = 30;

state = 1;

c1=true;}

break;

case 1 : while (c1=true)

{if ((ferry\_x\_pos <380.0)&&(car1\_x\_pos < 395))

{ferry\_x\_pos += 0.7;

flag\_x\_pos += 0.7;

car1\_x\_pos += 0.7;}

else

{ferry\_x\_pos += 0;

car1\_x\_pos +=0;

state= -3;

f=true;}

break;}

break;

case -1 : if (car2\_x\_pos >395.0)

{car2\_x\_pos += -1.0;

ferry\_x\_pos += 0;}

else

{car2\_x\_pos += 0;

flag\_x\_pos = 405.0f;

state = 2;

c2=true;}

break;

case 2 : while ((f=true) && (c2=true))

{if ((ferry\_x\_pos > 30) && (car2\_x\_pos > 45))

{car2\_x\_pos += -0.7;

flag\_x\_pos += -0.7;

ferry\_x\_pos += -0.7;}

else

{ferry\_x\_pos += -0;

car2\_x\_pos += -0;

state = -2;

f=false;}

break;}

break;

case -2 : if (car2\_x\_pos > -20)

car2\_x\_pos += -1.0;

else

{car2\_x\_pos = 500.0;

state = 3;

c2=false;}

break;

case -3 : if (car1\_x\_pos < 500)

car1\_x\_pos += 1.0;

else

{car1\_x\_pos = -20.0;

state = -1;

c1=false;

break;}

}

}

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

{

cout << endl << "\*\*\*\*\*\*\*\*\*\*\* View Of Ferry Ghat \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "Press n : For Night " << endl << endl;

cout << "Press b : For Day" << endl << endl;

cout << "Press d : To move cloud" << endl << endl;

cout << "Press a : To pause cloud " << endl << endl;

cout << "Press q : To Stop the Train" << endl << endl;

cout << "Press w : To resume the Train" << endl << endl;

cout << "Press e : To speed up the Train" << endl << endl;

cout << "Press r : To slow down the Train" << endl << endl;

/\*cout << "Press R : For Rain " << endl << endl;

cout << "Press E : For Stop Rain" << endl << endl;\*/

glutInit(&argc, argv);

glutInitDisplayMode (GLUT\_RGB | GLUT\_DOUBLE | GLUT\_DEPTH);

glutInitWindowSize (1240, 900);

glutInitWindowPosition (200, 100);

glutCreateWindow ("PROJECT");

glutDisplayFunc(Display);

glutKeyboardFunc(keyboard);

glutTimerFunc(10,FerryTimer,0);

glutTimerFunc(10,TrainTimer,0);

glutTimerFunc(10,windmillTimer,0);

glutTimerFunc(10,sunTimer, 0);

Init();

glutMainLoop();

return 0;

}