

```

1  #include<windows.h>
2  #include<GL/glut.h>
3  #include<stdlib.h>
4  #include<math.h>
5  double  r=.2,s=.3;
6  int i;
7  float  tx=10,bx=10;
8
9
10 void init()
11 {
12     glClearColor(1.0f,1.0f,1.0f,1.0f);
13     glOrtho(-210,210,-220,310,-210,310);
14
15 }
16 //-----sky-----
17
18 //-----cloud-----
19 void cloud(double x, double y)
20 {
21
22
23     glBegin(GL_TRIANGLE_FAN);
24     for(i=0;i<360;i++)
25     {
26         x=x+cos((i*3.14)/180)*r;
27         y=y+sin((i*3.14)/180)*r;
28
29         glVertex2d(x,y);
30
31     }
32
33
34     glEnd();
35
36
37
38 }
39 void sun(double x, double y)
40 {
41
42
43     glBegin(GL_TRIANGLE_FAN);
44     for(i=0;i<360;i++)
45     {
46         x=x+cos((i*3.14)/180)*s;
47         y=y+sin((i*3.14)/180)*s;
48
49         glVertex2d(x,y);
50
51     }
52
53
54     glEnd();
55
56
57
58 }
59 // -----Fence-----
60 void fence(int x)
61 {
62     glBegin(GL_POLYGON);
63     glColor3ub(184,134,11);
64
65     glVertex2i(190-x,130);
66     glVertex2i(190-x,70);

```

```

67         glVertex2i(187-x,70);
68         glVertex2i(187-x,130);
69         glVertex2i(190-x,130);
70
71
72
73     glEnd();
74
75 }
76
77 //-----
78
79
80
81
82
83 void display()
84 {
85
86     glClear(GL_COLOR_BUFFER_BIT);
87     //-----sky-----
88     glColor3ub(135,206,250); //light blue
89     glRecti(-200,300,200,100);
90     //-----field-----
91     glBegin(GL_POLYGON);
92         glColor3ub(0,100,0); //green
93
94         glVertex2i(-200,100);
95         glVertex2i(-100,160);
96         glVertex2i(0,100);
97         glVertex2i(50,70);
98         glVertex2i(100,180);
99         glVertex2i(200,100);
100        glColor3ub(255,215,0); //gold
101        glVertex2i(200,-200);
102
103        glVertex2i(-200,-200);
104        glColor3ub(255,215,0); //gold
105        glVertex2i(-200,100);
106
107    glEnd();
108
109    //-----SUN-----
110    glColor3ub(255,215,0);
111    sun(90,250);
112    //-----fence-----
113    int x=0;
114    for(int i=0;i<39;i++)
115    {
116        fence(x);
117        x+=10;
118    }
119
120    glColor3ub(184,134,11);
121    glRecti(-200,120,200,115);
122    glRecti(-200,100,200,95);
123    glRecti(-200,85,200,80);
124
125
126    //-----TREE-----
127    glColor3ub(139,69,19); //
128    glRecti(-20,200,-13,140);
129    glColor3ub(0,100,0);
130    sun(-30,190);
131    sun(0,190);
132    sun(-10,210);

```

```

133     sun(-30,175);
134     sun(-0,170);
135     glBegin(GL_POLYGON); // Main Tree // first part
136         glColor3ub(139,69,19); //
137         glVertex2i(-170,160);
138         glVertex2i(-168,120);
139         glColor3ub(139,69,19); //
140         glVertex2i(-178,40);
141         glVertex2i(-145,40);
142         glColor3ub(139,69,19); //
143         glVertex2i(-153,120);
144         glVertex2i(-150,160);
145         glVertex2i(-170,160);
146     glEnd();
147     glBegin(GL_POLYGON); // Main Tree // second part
148         glColor3ub(139,69,19); //
149         glVertex2i(-153,100);
150         glVertex2i(-100,200);
151         glVertex2i(-95,200);
152         glVertex2i(-153,80);
153         glVertex2i(-153,100);
154     glEnd();
155     glBegin(GL_POLYGON); // Main Tree // third part
156         glColor3ub(139,69,19); //
157         glVertex2i(-170,160);
158         glVertex2i(-185,210);
159         glVertex2i(-190,210);
160         glVertex2i(-168,90);
161         glVertex2i(-170,160);
162
163     glEnd();
164     glBegin(GL_POLYGON); // Main Tree // fourth part
165         glColor3ub(139,69,19); //
166         glVertex2i(-160,160);
167         glVertex2i(-150,210);
168         glVertex2i(-140,210);
169         glVertex2i(-150,160);
170         glVertex2i(-160,160);
171
172
173     glEnd();
174     glColor3ub(0,128,0); //leaf
175         sun(-95,200);
176         sun(-80,180);
177         sun(-110,180);
178         sun(-120,200);
179
180         sun(-150,200);
181         sun(-130,180);
182         sun(-125,220);
183         sun(-140,230);
184
185         sun(-190,210);
186         sun(-180,200);
187         sun(-175,225);
188         sun(-195,190);
189
190
191 //-----TUBEWELL-----
192
193     glBegin(GL_POLYGON); // First part
194
195         glColor3ub(0,100,0); //
196         glVertex2i(115,65);
197         glVertex2i(95,5);
198         glVertex2i(145,5);

```

```

199     glVertex2i(165,65);
200     glVertex2i(115,65);
201
202     glEnd();
203     glBegin(GL_POLYGON); // second part
204
205         glColor3ub(143,188,143); //
206         glVertex2i(120,58);
207         glVertex2i(104,13);
208         glVertex2i(140,12);
209         glVertex2i(155,58);
210         glVertex2i(120,58);
211
212     glEnd();
213     glColor3ub(0,0,0); // third part
214         glRecti(95,5,145,-6);
215
216     glBegin(GL_POLYGON); // fourth part
217         glColor3ub(0,0,0); //
218         glVertex2i(165,65);
219         glVertex2i(166,55);
220         glVertex2i(145,-6);
221         glVertex2i(145,5);
222         glVertex2i(165,65);
223     glEnd();
224     glBegin(GL_POLYGON); // tubewell 1st part
225         glColor3ub(184,134,11);
226         glVertex2i(120,85);
227         glVertex2i(120,30);
228         glVertex2i(125,28);
229         glVertex2i(130,30);
230         glVertex2i(130,85);
231         glVertex2i(125,87);
232         glVertex2i(120,85);
233     glEnd();
234     glBegin(GL_POLYGON); // tubewell second part
235         glColor3ub(255,215,0); // golden rod
236         glVertex2i(120,85);
237         glVertex2i(125,80);
238         glVertex2i(130,85);
239         glVertex2i(125,87);
240         glVertex2i(120,85);
241
242     glEnd();
243     glColor3ub(205,133,63); // golden rod // tubewell third part
244     glRecti(123,100,126,85);
245
246     glBegin(GL_POLYGON); // tubewell fourth part
247         glColor3ub(139,69,19); // saddle brown
248         glVertex2i(126,100);
249         glVertex2i(128,102);
250         glVertex2i(128,110);
251         glVertex2i(126,113);
252         glVertex2i(124,111);
253         glVertex2i(100,80);
254         glVertex2i(90,70);
255         glVertex2i(90,65);
256         glVertex2i(100,73);
257         glVertex2i(126,100);
258     glEnd();
259     glBegin(GL_POLYGON); // tubewell 5th part
260         glColor3ub(210,105,30); // golden rod
261         glVertex2i(130,70);
262         glVertex2i(140,70);
263         glVertex2i(140,50);
264         glVertex2i(136,50);

```

```

265     glVertex2i(136,60);
266     glVertex2i(130,60);
267     glVertex2i(130,70);
268
269     glEnd();
270     glColor3ub(210,105,30); //golden rod //tubewell last part
271     glRecti(123,29,127,20);
272     glColor3ub(139,69,19); //saddle brown
273     glRecti(118,22,132,14);
274 // ----- HOUSE one-----
275     glBegin(GL_POLYGON); // first Part
276         glColor3ub(128,0,0); //gray
277         glVertex2i(-58,115);
278         glVertex2i(-75,145);
279         glVertex2i(-115,150); //point
280         glVertex2i(-90,100);
281         glVertex2i(-62,100);
282         glVertex2i(-58,115);
283
284     glEnd();
285     glBegin(GL_POLYGON); // second Part
286         glColor3ub(120,0,0); //maroon
287         glVertex2i(-115,150);
288         glVertex2i(-130,100);
289         glVertex2i(-120,100); //point
290         glVertex2i(-108,137); //point
291         glVertex2i(-115,150);
292     glEnd();
293     glBegin(GL_POLYGON); // third Part
294         glColor3ub(46,139,87); //
295         glVertex2i(-108,137);
296         glVertex2i(-120,100);
297         glVertex2i(-120,45);
298         glVertex2i(-90,40); //point
299         glVertex2i(-90,100);
300         glVertex2i(-108,137);
301     glEnd();
302
303
304     glBegin(GL_POLYGON); // fourth Part
305         glColor3ub(143,188,143); //
306         glVertex2i(-90,40);
307         glVertex2i(-60,45);
308         glVertex2i(-60,100);
309         glVertex2i(-90,100);
310
311     glEnd();
312     glColor3ub(120,0,0); //maroon // Door One
313     glRecti(-75,80,-65,40);
314     glColor3ub(120,0,0); //maroon // Door One
315     glRecti(-110,90,-100,70);
316     glBegin(GL_POLYGON); // third Part (lower part 1)
317         glColor3ub(0,0,0); //
318         glVertex2i(-90,40);
319         glVertex2i(-123,45);
320         glVertex2i(-123,35);
321         glVertex2i(-90,30);
322         glVertex2i(-90,40);
323
324     glEnd();
325     glBegin(GL_POLYGON); // third Part (lower part 2)
326         glColor3ub(0,0,0); //
327         glVertex2i(-90,40);
328         glVertex2i(-55,45);
329         glVertex2i(-55,35);
330         glVertex2i(-90,30);

```

```

331         glVertex2i(-90,40);
332
333
334     glEnd();
335
336
337
338
339     //----- HOUSE two
-----
340     glBegin(GL_POLYGON); // First part
341
342         glColor3ub(25,25,112); //midnight blue
343         glVertex2i(-50,140);
344         glVertex2i(0,149);
345         glVertex2i(-12,88);
346         glVertex2i(-65,89);
347         glVertex2i(-50,140);
348     glEnd();
349
350
351
352
353
354     glBegin(GL_POLYGON); // Second Part
355     glColor3ub(70,130,180); //midnight blue
356         glVertex2i(-60,90);
357         glVertex2i(-60,30);
358         glVertex2i(-10,25);
359         glVertex2i(-10,95);
360     glEnd();
361
362
363     //-----Door-----
364     glColor3ub(25,25,112); //midnight blue
365     glRecti(-45,70,-30,27);
366
367     //-----
368     glBegin(GL_POLYGON); // Third part
369     glColor3ub(95,158,160); //midnight blue
370         glVertex2i(-10,25);
371         glVertex2i(18,35);
372         glVertex2i(18,100);
373         glVertex2i(0,148);
374         glVertex2i(-10,100);
375         glVertex2i(-10,25);
376
377     glEnd();
378
379     glBegin(GL_POLYGON);
380     glColor3ub(25,25,112); //midnight blue
381         glVertex2i(-1,150);
382         glVertex2i(20,100);
383         glVertex2i(17,90);
384         glVertex2i(-4,140);
385         glVertex2i(-1,150);
386
387     glEnd();
388
389
390     glBegin(GL_POLYGON); // door
391     glColor3ub(25,25,112); //midnight blue
392         glVertex2i(0,70);
393         glVertex2i(10,73);
394         glVertex2i(10,32);
395         glVertex2i(0,29);

```

```

396         glVertex2i(0,70);
397
398
399     glEnd();
400     glBegin(GL_POLYGON); // (lower part 1)
401         glColor3ub(0,0,0); //
402         glVertex2i(-10,25);
403         glVertex2i(-10,15);
404         glVertex2i(20,27);
405         glVertex2i(20,37);
406         glVertex2i(-10,25);
407
408
409     glEnd();
410     glBegin(GL_POLYGON); // (lower part 2)
411         glColor3ub(0,0,0); //
412         glVertex2i(-10,25);
413         glVertex2i(-62,30);
414         glVertex2i(-62,20);
415         glVertex2i(-10,15);
416         glVertex2i(-10,25);
417
418
419
420
421     glEnd();
422
423
424 //-----RIVER-----
425     glBegin(GL_POLYGON);
426         glColor3ub(30,144,255);
427         glVertex2i(-200,-50);
428         glVertex2i(200,-30);
429         glColor3ub(0,0,128);
430         glVertex2i(200,-200);
431         glVertex2i(-200,-200);
432         glVertex2i(-200,-50);
433     glEnd();
434     glBegin(GL_POLYGON); // border
435         glColor3ub(128,128,0);
436         glVertex2i(-200,-45);
437         glVertex2i(200,-25);
438         glVertex2i(200,-30);
439         glVertex2i(-200,-50);
440         glVertex2i(-200,-45);
441     glEnd();
442
443 //-----CLOUD-----
444     glPushMatrix();
445     glColor3ub(220,220,220);
446     glTranslatef(tx,0,0);
447     cloud(0,250);
448     cloud(15,245);
449     cloud(10,240);
450     cloud(-2,243);
451
452
453
454     cloud(-80,250);
455     cloud(-95,245);
456     cloud(-90,240);
457     cloud(-90,243);
458     cloud(-75,243);
459
460     glPopMatrix();
461     tx+=.01;

```

```

462     if(tx>200)
463         tx=-200;
464 //-----BOAT-----
465     glPushMatrix();
466     glColor3f(0.0f, 0.0f, 0.0f); //Black
467     glTranslatef(bx,0,0);
468     glBegin(GL_POLYGON);
469         glVertex2i(-180,-70);
470         glVertex2i(-165,-100);
471         glVertex2i(-150,-120);
472         glVertex2i(-150,-100);
473         glVertex2i(-180,-70);
474     glEnd();
475     glBegin(GL_POLYGON);
476         glVertex2i(-150,-100);
477         glVertex2i(-150,-120);
478         glVertex2i(-120,-125);
479         glVertex2i(-90,-120);
480         glVertex2i(-85,-100);
481         glVertex2i(-150,-100);
482     glEnd();
483     glBegin(GL_POLYGON);
484         glVertex2i(-85,-100);
485         glVertex2i(-90,-120);
486         glVertex2i(-75,-105);
487         glVertex2i(-60,-70);
488         glVertex2i(-85,-100);
489     glEnd();
490     glColor3ub(211,211,211);
491     sun(-165,260);
492     sun(-185,245);
493     sun(-180,240);
494     sun(-152,243);
495
496 //-----BOAT FLAG-----
497     glBegin(GL_POLYGON);
498         glColor3ub(173,216,230);
499         glVertex2i(-57,-40);
500         glVertex2i(-50,-10);
501         glVertex2i(-49,10);
502         glVertex2i(-50,30);
503         glVertex2i(-55,45);
504         glVertex2i(-63,57);
505         glVertex2i(-73,68); // end
506         glVertex2i(-105,45);
507         glVertex2i(-50,-10);
508
509
510     glEnd();
511     glBegin(GL_POLYGON);
512         glColor3ub(173,216,230);
513
514         glVertex2i(-68,-70);
515         glVertex2i(-57,-40);
516         glVertex2i(-85,10);
517         glVertex2i(-68,-70);
518     glEnd();
519     glBegin(GL_POLYGON);
520         glColor3ub(173,216,230);
521         glVertex2i(-85,-100);
522         glVertex2i(-68,-70);
523         glVertex2i(-80,-10);
524         glVertex2i(-85,-100);
525
526     glEnd();
527

```



```

528     glColor3ub(139,69,19);
529     glRecti(-88,80,-86,-100); // Boat stand
530     glBegin(GL_POLYGON);
531         glColor3f(0.55,0.27,0.0745); //wood color
532         glVertex2i(-85,-100);
533         glVertex2i(-87,-80);
534         glVertex2i(-93,-62);
535         glVertex2i(-97,-55);
536         glVertex2i(-105,-50);
537         glVertex2i(-120,-48);
538         glVertex2i(-120,-100);
539         glVertex2i(-85,-100);
540
541     glEnd();
542
543     glBegin(GL_POLYGON);
544         glColor3f(0.55,0.27,0.0745); //wood color
545         glVertex2i(-150,-100);
546         glVertex2i(-148,-80);
547         glVertex2i(-142,-62);
548         glVertex2i(-138,-55);
549         glVertex2i(-130,-50);
550         glVertex2i(-115,-48);
551         glVertex2i(-115,-100);
552         glVertex2i(-150,-100);
553
554
555     glEnd();
556
557 //-----BOAT LINE-----
558     glBegin(GL_LINE_STRIP);
559         glColor3f(0.0f, 0.0f, 0.0f); //Black
560         glVertex2i(-142,-62);
561         glVertex2i(-73,68);
562         glVertex2i(-73,63);
563
564         glVertex2i(-142,-62);
565         glVertex2i(-105,45);
566     glEnd();
567     glBegin(GL_LINE_STRIP);
568         glColor3f(0.0f, 0.0f, 0.0f); //Black
569         glVertex2i(-148,-80);
570         glVertex2i(-87,-80);
571     glEnd();
572     glBegin(GL_LINE_STRIP);
573         glColor3f(0.0f, 0.0f, 0.0f); //Black
574         glVertex2i(-142,-62);
575         glVertex2i(-93,-62);
576     glEnd();
577     glBegin(GL_LINE_STRIP);
578         glColor3f(0.0f, 0.0f, 0.0f); //Black
579         glVertex2i(-115,-48);
580         glVertex2i(-115,-100);
581     glEnd();
582     glBegin(GL_LINE_STRIP);
583         glColor3f(0.0f, 0.0f, 0.0f); //Black
584         glVertex2i(-130,-50);
585         glVertex2i(-130,-100);
586     glEnd();
587     glBegin(GL_LINE_STRIP);
588         glColor3f(0.0f, 0.0f, 0.0f); //Black
589         glVertex2i(-100,-52);
590         glVertex2i(-100,-100);
591     glEnd();
592
593

```

```
594
595
596
597     glPopMatrix();
598     bx+=.03;
599     if(bx>270)
600         bx=-180;
601
602
603     glutPostRedisplay();
604     glColor3ub(255,255,255);//
605     glRecti(-210,310,-200,-210);
606     glRecti(200,310,210,-210);
607 //-----
608     glFlush();
609 }
610
611
612
613 int main(int argc,char *argv[])
614 {
615     glutInit(&argc,argv);
616     glutInitWindowSize(1200,800);
617     glutInitWindowPosition(10,10);
618     glutInitDisplayMode(GLUT_RGB | GLUT_SINGLE);
619     glutCreateWindow(" village scenery ");
620     init();
621     glutDisplayFunc(display);
622     glutMainLoop();
623     return 0;
624 }
```