```
glColor3f(1.0,0.0,0.0);
glLoadIdentity();
glTranslatef(0.8,-0.769+up,0.0);
glutSolidSphere(0.10,20,16);
glColor3f(0.0,0.0,1.0);
glPushMatrix();
glColor3f(0.0,0.0,1.0);
glLoadIdentity();
glTranslatef(0.4,0.769-up,0.0);
glutSolidSphere(0.10,20,16);
glColor3f(0.0,0.0,1.0);
if(shoot==1)
{
glPushMatrix();
glLoadIdentity();
glTranslatef(-0.8+pos,0.0,0.0);
glColor3f(0.0,0.0,0.0);
glLineWidth(2.0);


glBegin(GL_LINES);
glVertex3f(-0.2,0.0,0.0);
glVertex3f(0.1,0.0,0.0);
glVertex3f(0.1,0.0,0.0);
glVertex3f(0.03,0.05,0.0);
glVertex3f(0.1,0.0,0.0);
glVertex3f(0.03,-0.05,0.0);
glEnd();
glPopMatrix();
}
if(bang==1)
{
bang=0;pos=-0.2;
glPushMatrix();
glLoadIdentity();
up=0;
glColor3f(1.0,0.0,0.0);
glutSolidSphere(1,20,16);
glPopMatrix();
}
glPopMatrix();
for( i=0;i<200;i=i+20)
{
if(pos>=1.75 && up>0.825 && up<0.975)
{
counter2 ++;
for(j=0;j<10000;j++);
shoot=0;
pos=-0.2;
bang=1;
}
```

```
up=(up+0.005);
if(up>2)
up=0;
if(shoot==1)
{
pos=pos+0.009;
if(pos>2)
{
pos=-0.2;
shoot=0;
}
}
glutPostRedisplay();
}
}



glFlush();
}
void display()
{
glClearColor(1.0,0.7,0.0,1.0);
glClear(GL_COLOR_BUFFER_BIT|GL_DEPTH_BUFFER_BIT);
glFlush();
}
void displost()
{
glClear(GL_COLOR_BUFFER_BIT);
glMatrixMode(GL_PROJECTION);
glLoadIdentity();
gluOrtho2D(0,200,0,200);
glMatrixMode(GL_MODELVIEW);
glClearColor(1.0,0.0,0.5,1.0);
glColor3f(0.0,0.8,0.80);
glBlendFunc(GL_SRC_ALPHA, GL_ONE_MINUS_SRC_ALPHA);
glEnable(GL_BLEND);
glEnable(GL_LINE_SMOOTH);
glLineWidth(4.0);
drawhit("you lost!!",70,550);
glFlush();
}
void indisplay()
{
glClearColor(1.0,0.7,0.0,1.0);
glClear(GL_COLOR_BUFFER_BIT|GL_DEPTH_BUFFER_BIT);
instructions();
glFlush();
}
void keyboard(unsigned char key,int x,int y)
```

```
{
if (key=='f')
{
shoot=1;
count++;
}
}
void choose(int i)
{
switch(i)
{ case 1: exit(0);
case 2: glutDisplayFunc(display1);
break;
case 3: glutDisplayFunc(display2);
break;



default:exit(0);
}
}
int main(int argc,char **argv)
{
glutInit(&argc,argv);
glutInitDisplayMode(GLUT_DEPTH|GLUT_RGB);
glutInitWindowSize(1500,1500);
glutInitWindowPosition(0,0);
instruct=glutCreateWindow("Instructions");
init();
glutDisplayFunc(indisplay);
glutInitDisplayMode(GLUT_DEPTH|GLUT_RGB);
glutInitWindowSize(1000,1000);
glutInitWindowPosition(0,0);
game=glutCreateWindow("Proj");
init();
glutDisplayFunc(display);
glutKeyboardFunc(keyboard);
glutCreateMenu(choose);
glutAddMenuEntry("Quit",1);
glutAddMenuEntry("PlayLevel1",2);
glutAddMenuEntry("PlayLevel2",3);
glutAttachMenu(GLUT_RIGHT_BUTTON);
glutMainLoop();
return 0;
}
```

Chapter 5

RESULTS

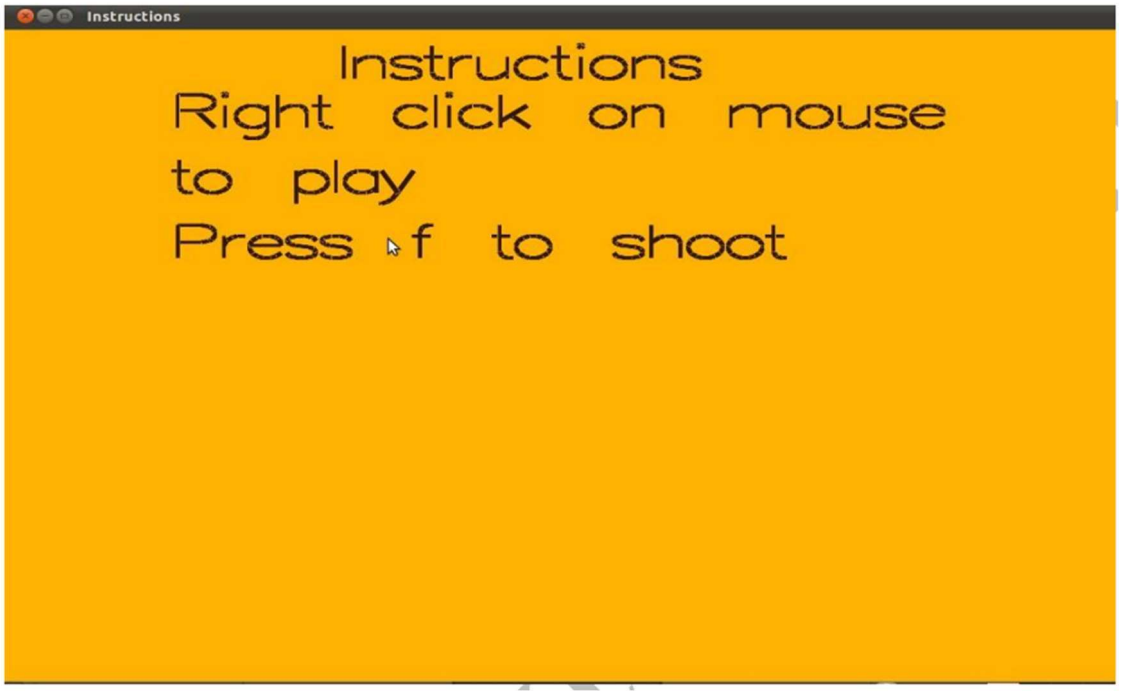

Fig 5.1: Start page of the application with instructions

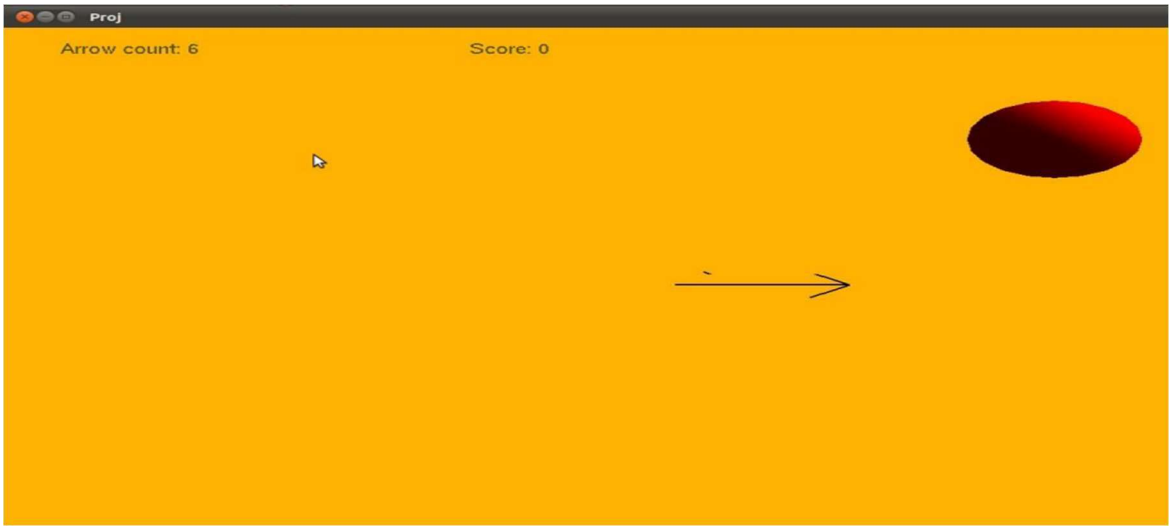

Fig 5.2: First level of the application

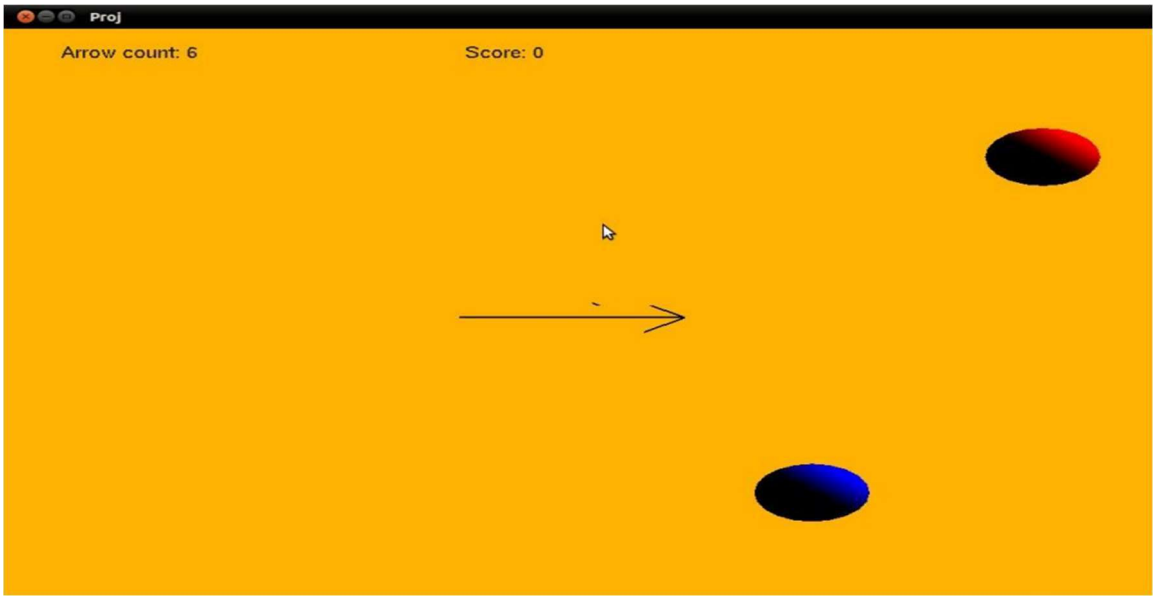

Fig 5.3: Second level of the application

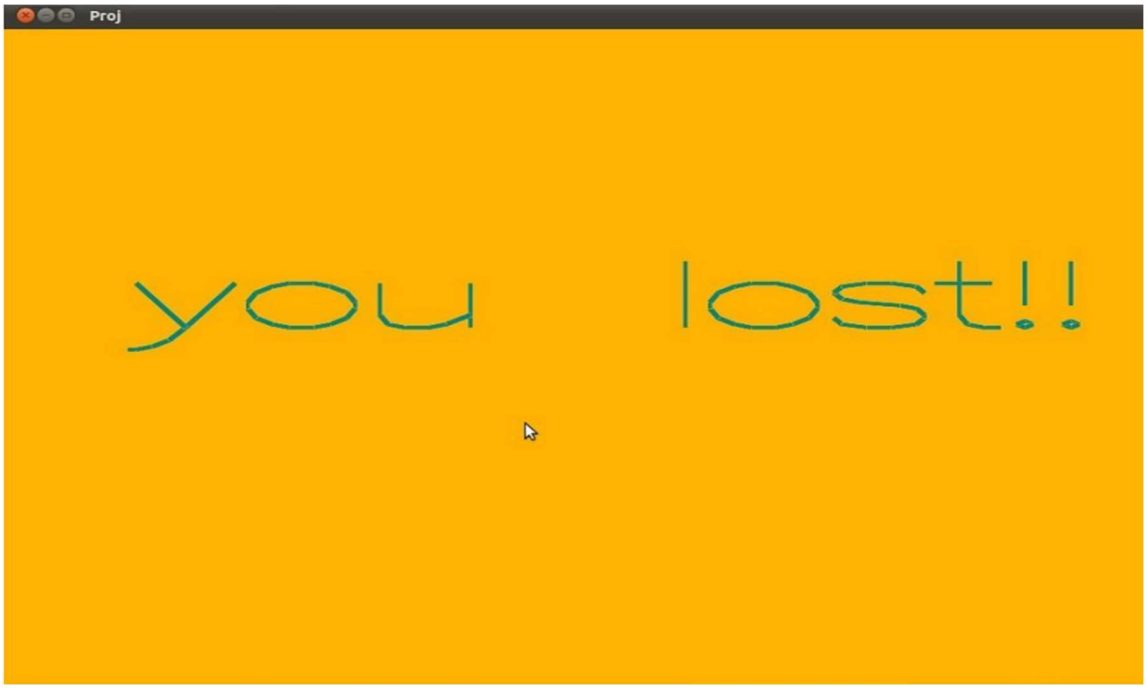

Fig 5.4: Page is displayed if user loss the game

Fig 5.5: Page is displayed if user wins the game

CONCLUSION

The development of computer graphics has made computers easier to interact with and better for understanding and interpreting many types of data. Developments in computer graphics have had a profound impact on many types of media and have revolutionized the animation and video game industry.

We started with modest aim with no prior experience in any programming projects as this, but ended up in learning many things, fine tuning the programming skills and getting into the real world of software development with an exposure to corporate environment. During the development of any software of significant utility, we are faced with the trade-off between speed of execution and amount of memory consumed. This is simple interactive application application. It is extremely user friendly and has the features, which makes simple graphics project. It has an open source code and no security features has been included. The user is free to alter the code for feature enhancement. Checking and verification of all possible types of the functions are taken care. Care was taken to avoid bugs. Bugs may be reported to creator as the need may be .So, we conclude on note that we are looking forward to develop more such projects with an appetite to learn more in computer graphics.

BIBLIOGRAPHY

1. Interactive Computer Graphics: A Top Down Approach with OpenGL- Edward Angel, 5th Edition, Addison-Wellesley,2008.

2. Online tutorials for game development at NeHe productions.

3. OpenGL Red Book and Blue Book for reference.

4. www.opengl.org for OpenGL tutorials