1. Write c++ program to move circular star on circular orbit

2. Draw cycle and show the movement/ Moving Ball

3. Use mouse and draw polygon

4. Draw Pie chart and Bar chart for annual sales of some company. Assume that month wise sales is given in file

5. Develop menu driven system(using graphics mode) for the employee management
   Give option like add, delete, modify, update, display etc

This function may useful to display text

```
void drawText(float x, float y, float r, float g, float b, const char* text) {
   glColor3f(r, g, b); // Set text color
   glRasterPos2f(x, y); // Set text position
   for (int i = 0; text[i] != '\0'; ++i) {
      glutBitmapCharacter(GLUT_BITMAP_HELVETICA_18, text[i]); // Display
each character of the text
   }
}
```

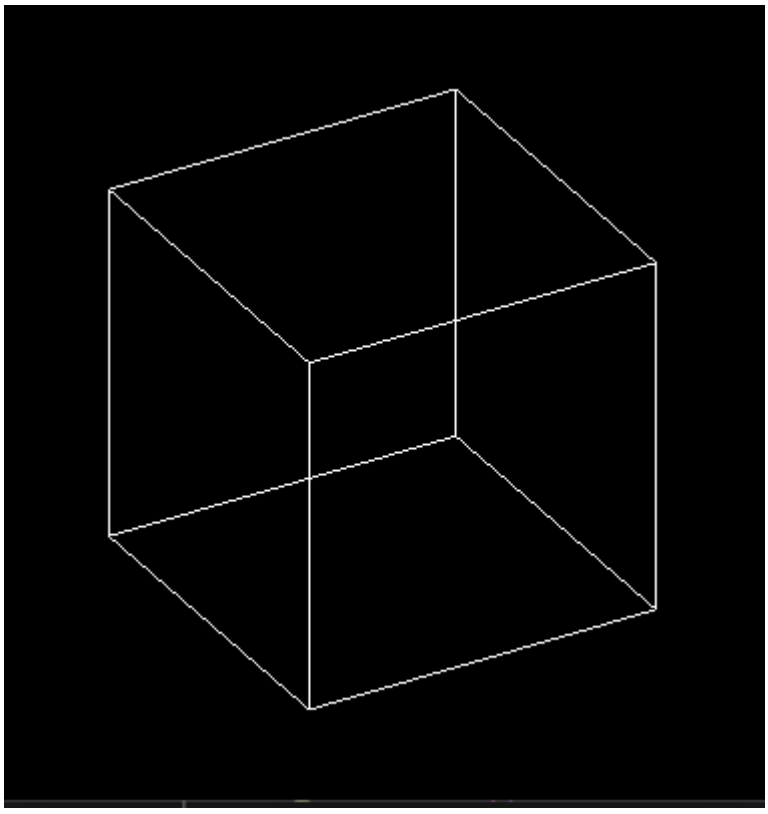
6. Draw 3D cube and rotate
   Define cube like this

```
GLfloat cube[8][3]={{-100,-100,100},{100,-100,100},{100,100,100},{-
100,100,100},
{-100,-100,-100},{100,-100,-100},{100,100,-100},{-100,100,-100}};
GLint       indic[6][4]={{0,1,2,3},{4,7,6,5},{0,3,7,4},{1,5,6,2},{3,2,6,7},{0,4,5,1}};
```

Draw faces

```
 glBegin(GL_QUADS);
   for(i=0;i<6;i++)
   {
      glVertex3fv(&cube[indic[i][0]][0]);
      glVertex3fv(&cube[indic[i][1]][0]);
```

```
        glVertex3fv(&cube[indic[i][2]][0]);
        glVertex3fv(&cube[indic[i][3]][0]);
    }
    glEnd();
```



To see three face rotate about x and rotate about y then use parallel projection glOrtho take parallel projection

```
void reshape(int w,int h)
{
glViewport(0,0,w,h);
   glMatrixMode(GL_PROJECTION);
   glLoadIdentity();
   glOrtho(-200,200,-200,200,-200,200);
   glMatrixMode(GL_MODELVIEW);
```

```
    glLoadIdentity();


}
```

pie chart you can use

```
for (int i = 0; i < NUM_SEGMENTS; ++i) {
        float angle = 360.0f * i / NUM_SEGMENTS;
        float angle_increment = 360.0f / NUM_SEGMENTS;
        drawSegment(cx, cy, r, angle_sum, angle_sum + angle_increment,
colors[i]);
        angle_sum += angle_increment;
    }
```