Assignment no 3

Code

```
#include<GL/glut.h>
#include<iostream>
using namespace std;
int r;
void E_way(int x, int y){
      glBegin(GL_POINTS);
         glVertex2i(x+320,y+240);
         glVertex2i(y+320,x+240);
         glVertex2i(y+320, -x+240);
         glVertex2i(x+320, -y+240);
         glVertex2i(-x+320,-y+240);
         glVertex2i(-y+320,-x+240);
         glVertex2i(-y+320,x+240);
         glVertex2i(-x+320,y+240);
      glEnd();
      glFlush();
}
void B_circle(){
   float d;
   d = 3 - 2*r;
   int x,y;
   x = 0 ;
   y = r ;
   do{
      E_way(x,y);
      if(d<0){
         d=d+4*x+6;
    }
      else{
         d= d+4*(x-y)+10;
         y=y-1;
      }
      x=x+1;
   }while(x<y);
}
```

```
void init(){
   glClearColor(1,1,1,0);
   glColor3f(1,0,0);
   gluOrtho2D(0,640,0,480);
   glClear(GL_COLOR_BUFFER_BIT);
}
int main(int argc, char **argv){
   cout<<"\n Enter Radius \t ";
   cin>>r;
   glutInit(&argc, argv);
   glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);
   glutInitWindowPosition(100,100);
   glutInitWindowSize(640,480);
   glutCreateWindow("Circle");
   init();
   glutDisplayFunc(B_circle);
   glutMainLoop();
   return 0;
}
```

OUTPUT

```
g++ filename.cpp -lGL -lGLU -lglut
./a.out
```