```c
//CG Exp 6: Midpoint Circle Generation
//SE3_41_C : Kunal Patil

#include<graphics.h>
#include<conio.h>
#include<stdio.h>

int main()
{
    int x,y,x_mid,y_mid,radius,dp;
    int g_mode,g_driver=DETECT;
    initgraph(&g_driver,&g_mode," ");
    printf("Enter the coordinates: ");
    scanf("%d %d",&x_mid,&y_mid);
    printf("Enter the radius =");
    scanf("%d",&radius);
    x=0;
    y=radius;
    dp=1-radius;

    do {
        printf("%d\t%d\t%d\n", dp, x, y);
        delay(100);
        putpixel(x_mid+x,y_mid+y,YELLOW);
        putpixel(x_mid+y,y_mid+x,YELLOW);
        putpixel(x_mid-y,y_mid+x,YELLOW);
        putpixel(x_mid-x,y_mid+y,YELLOW);
        putpixel(x_mid-x,y_mid-y,YELLOW);
        putpixel(x_mid-y,y_mid-x,YELLOW);
        putpixel(x_mid+y,y_mid-x,YELLOW);
        putpixel(x_mid+x,y_mid-y,YELLOW);
        if(dp<0) {
            dp+=(2*x)+1;
        } else {
            y=y-1;
            dp+=(2*x)-(2*y)+1;
        }
        x=x+1;
    } while(y>x);

    getch();
    return 0;
}
```

```
Enter the coordinates: 320 240
Enter the radius: 25
DP        X        Y
-24       0        25
-23       1        25
-20       2        25
-15       3        25
-8        4        25
1         5        25
-36       6        24
-23       7        24
-8        8        24
9         9        24
-18       10       23
3         11       23
-18       12       22
7         13       22
-8        14       21
21        15       21
12        16       20
7         17       19
```