# EXPERIMENT 2 (ADVANCE)

## COMPUTER GRAPICS AND MULTIMEDIA

### Aim

Write a program to rotate a circle (alternatively inside and outside) around the circumference of another circle (animation).

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# EXPERIMENT - 2

## AIM:

Write a program to rotate a circle (alternatively inside and outside) around the circumference of another circle (animation).

## THEORY:

circle(x, y, radius);

where,

(x, y) is center of the circle.

'radius' is the Radius of the circle.

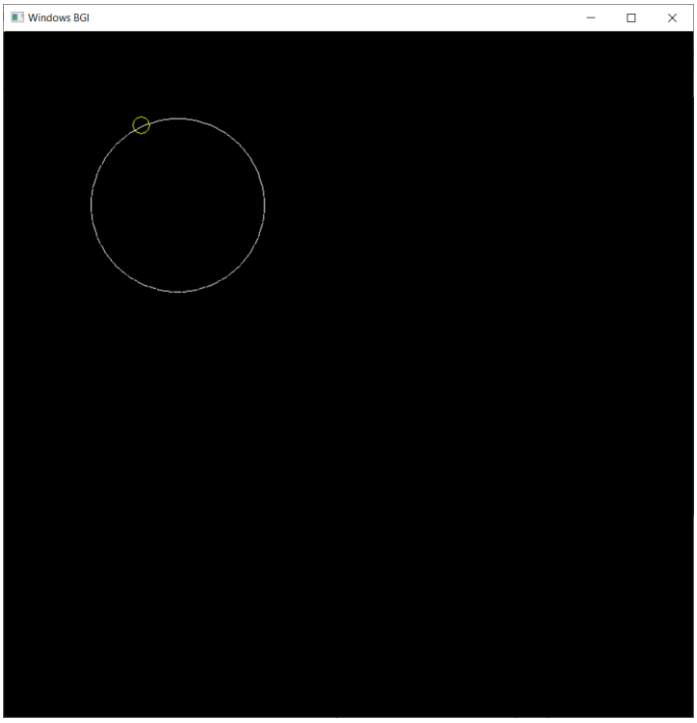
## SOURCE CODE:

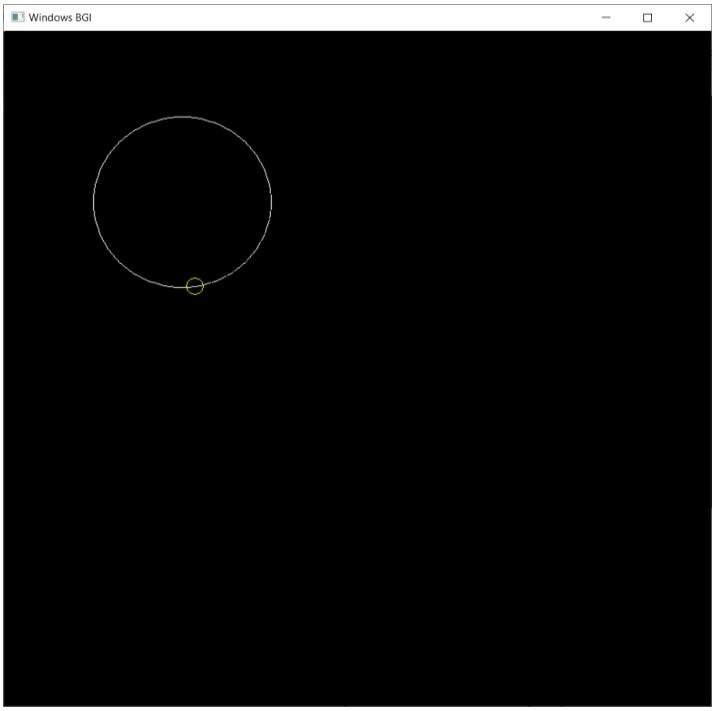
```
#include <graphics.h>

#include <iostream>

#include <math.h>

using namespace std;


void CircumRotation(int x, int y) {
        for (int angle = 0; angle < 360; angle++) {
                int nx = x + cos(angle/3.5)*100;
                int ny = y + sin(angle/3.5)*100;
                setcolor(WHITE);
                circle(nx, ny, 10);
                delay(500);
                setcolor(BLACK);
                circle(nx, ny, 10);
        }
}


void rotation(int x, int y, int radius) {
```

```
	int nx = x + 120;
	int ny = y;
	for (int angle = 0; angle < 360; angle++) {
		setcolor(RED);
		int nx = x + cos(angle/3.5)*100;
		int ny = y + sin(angle/3.5)*100;
		circle(nx, ny, radius);
		delay(500);
		setcolor(BLACK);
		circle(nx, ny, radius);
		setcolor(YELLOW);
		nx = x + cos(angle/3.5)*120;
		ny = y + sin(angle/3.5)*120;
		circle(nx, ny, radius);
		delay(500);
		setcolor(BLACK);
		circle(nx, ny, radius);
		setcolor(BLUE);
		nx = x + cos(angle/3.5)*80;
		ny = y + sin(angle/3.5)*80;
		circle(nx, ny, radius);
		delay(500);
		setcolor(BLACK);
		circle(nx, ny, radius);
	}
}

int main() {
	initwindow (800, 800);
	circle (200, 200, 100);
//	rotation(200, 200, 10);
	CircumRotation(200, 200);
```

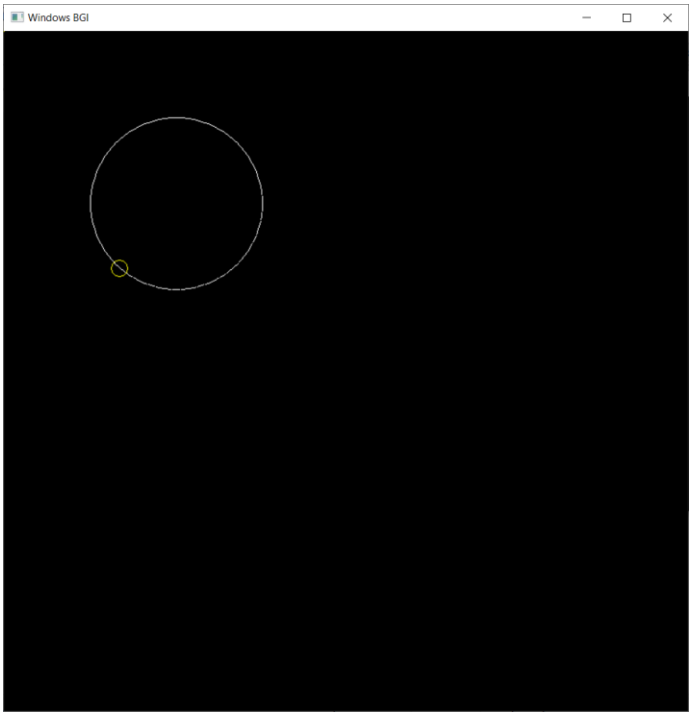
```
        getch();
        closegraph();
        return 0;
}
```

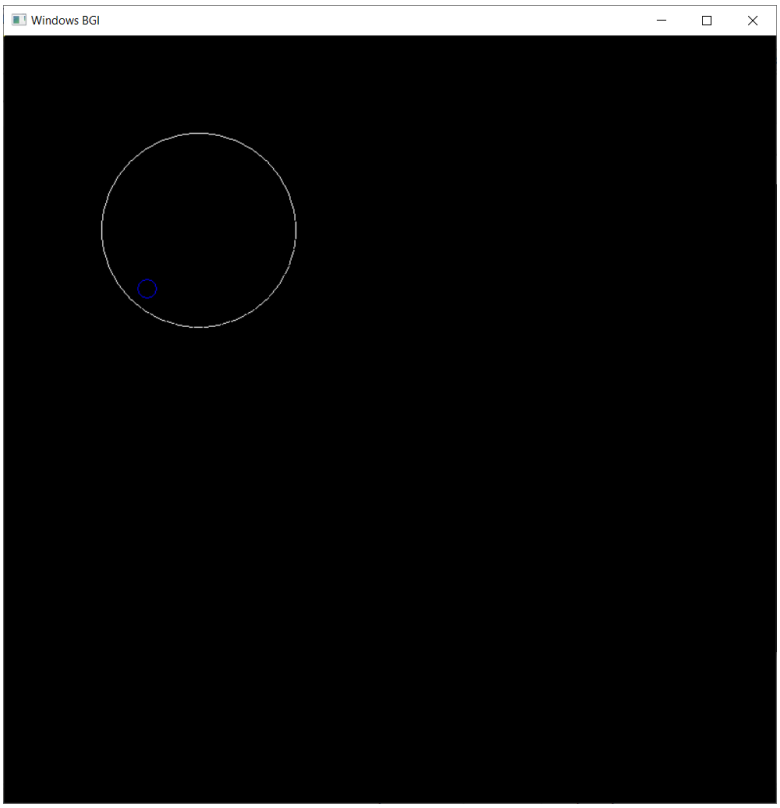
# OUTPUT:

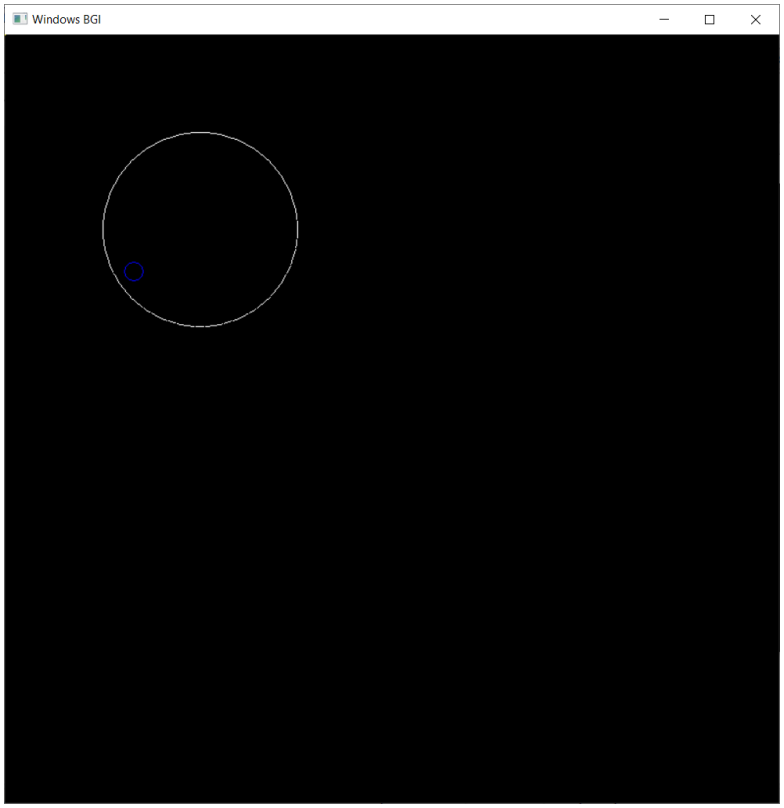







Windows BGI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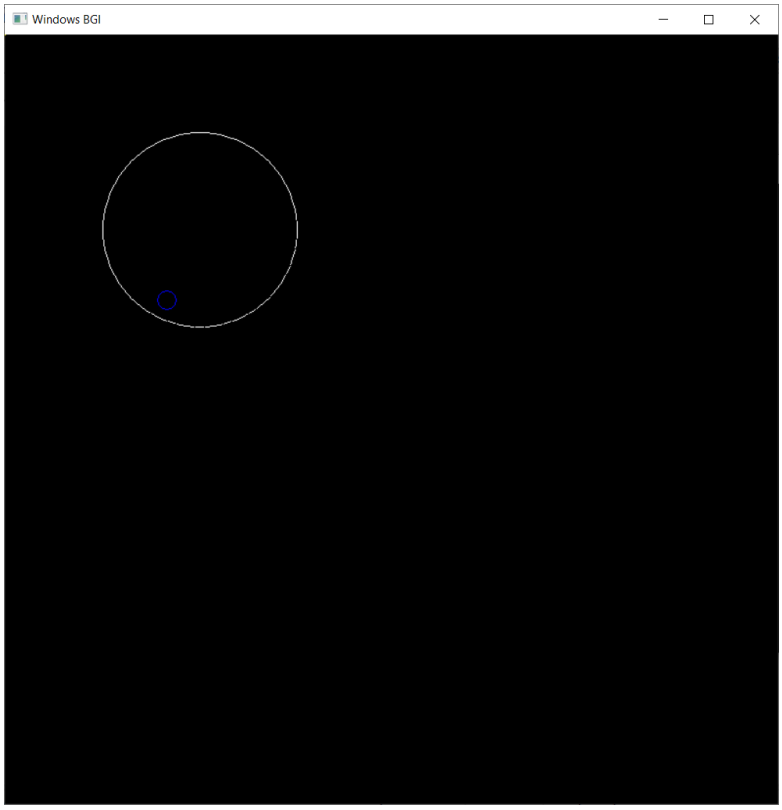
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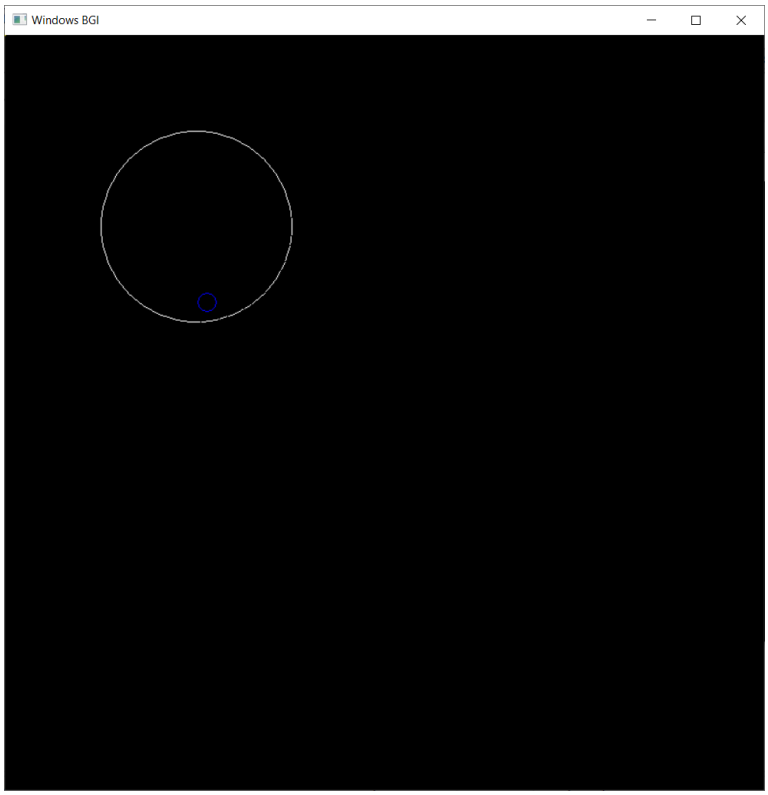
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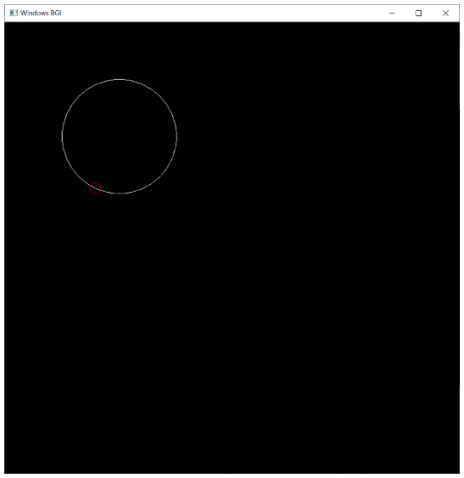
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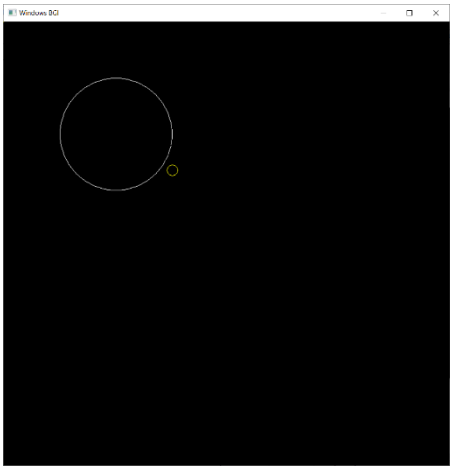
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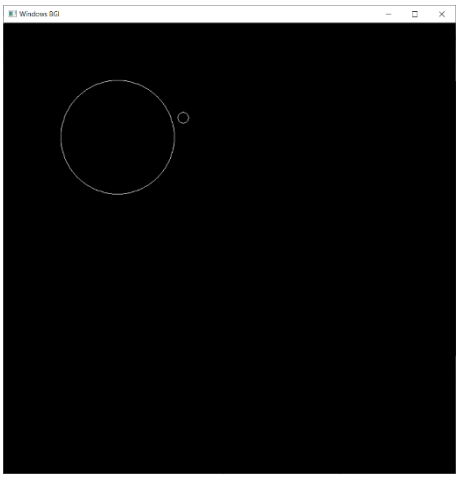
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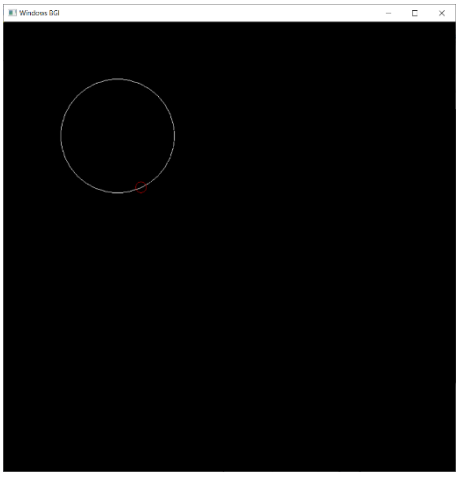
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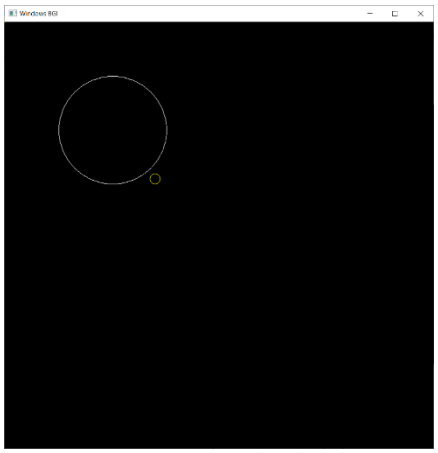
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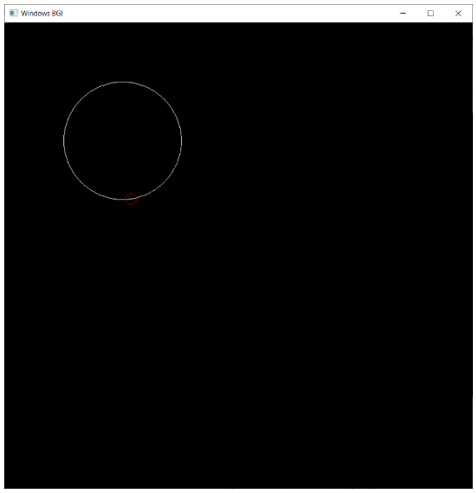
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