Lab 9: Graphics in C

Adding graphics package in Dev C++

1. Download the Dev C++ also download *https://tinyurl.com/3ve35mzh*
2. You need to copy "graphics.h" and "winbgim.h" into include the directory of Dev-Cpp program resource files. The exact directory address is –
   C:\Program Files (x86)\Dev-Cpp\MinGW64\include
3. Next, copy "libbgi.a" to the lib folder, which should be inside MinGW64. The directory address is –
   C:\Program Files (x86)\Dev-Cpp\MinGW64\lib
4. In Dev C++, Set it to the latest **TDM - GCC [version] 32-bit release**.
5. In Dev C++, Expand tools and select Compiler Options.
   - Ensure the "Add the following commands when calling the linker" check box is selected.
   - Then add these linkers in the input box – (copy and paste this line)
     -static-libgcc -lbgi -lgdi32 -lcomdlg32 -luuid -loleaut32 -lole32
   - Then click on OK to save.

Theory:

- Define graphics and its application
- List down different types of graphics functions in C.

Lab:

Question: 1

WAP to draw a circle with radius 200 using C.

```
#include <graphics.h>
#include <conio.h>
int main() {
    int gd = DETECT, gm;
    initgraph(&gd, &gm, "");

    setcolor(BLUE);
    circle(200, 200, 100);
    getch();
    closegraph();
    return 0;
}
```

Output:

Question: 2

WAP to draw a line with two end points using C.

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

int main() {
    int gd = DETECT, gm;
    int x1, y1, x2, y2;


    initgraph(&gd, &gm, "");


    printf("Enter coordinates of first point (x1 y1): ");
    scanf("%d %d", &x1, &y1);

    printf("Enter coordinates of second point (x2 y2): ");
    scanf("%d %d", &x2, &y2);

    // Draw line
    line(x1, y1, x2, y2);

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

Output:

Question: 3

WAP to draw a circle and flood fill it using C.

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

int main() {
    int gd = DETECT, gm;
    int x, y, radius;
```

```
    initgraph(&gd, &gm, "");


    printf("Enter center of the circle (x y): ");
    scanf("%d %d", &x, &y);
    printf("Enter radius of the circle: ");
    scanf("%d", &radius);


    setcolor(WHITE);


    circle(x, y, radius);


    setfillstyle(SOLID_FILL, RED);

    // Flood fill inside the circle
    floodfill(x, y, WHITE);

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

Output:

Conclusion:

- What did you learn from the lab?