Computer Graphics:

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Submitted By:

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Roll no. 2038

BCA 6th semester

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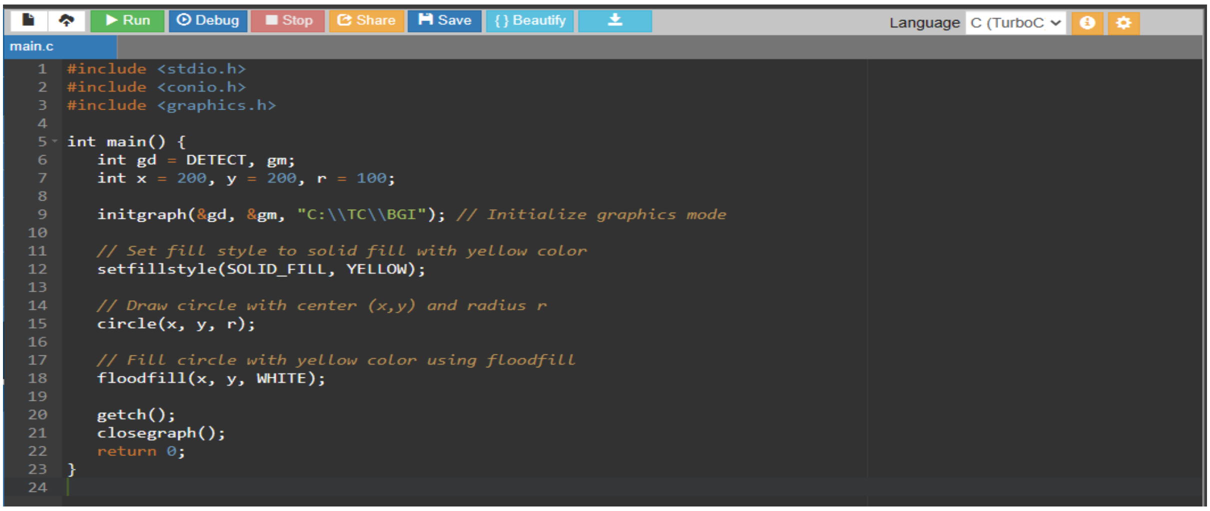
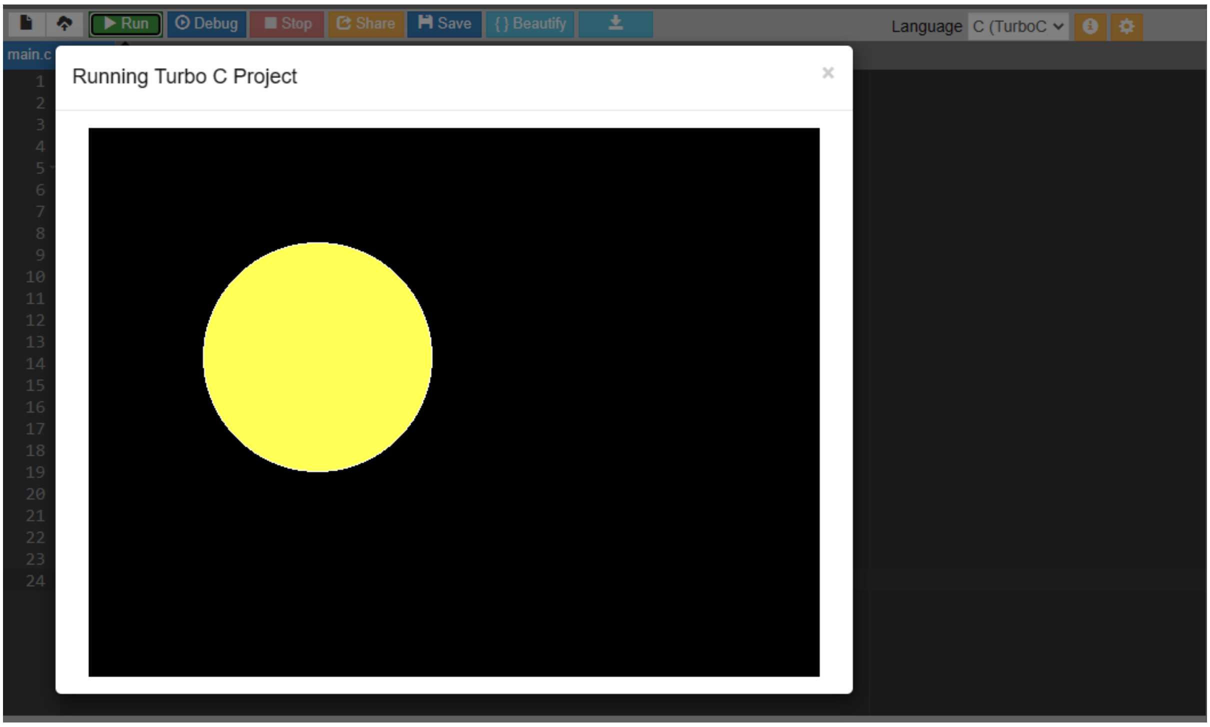
PRACTICAL 1:

Draw a circle. Fill the circle with yellow color



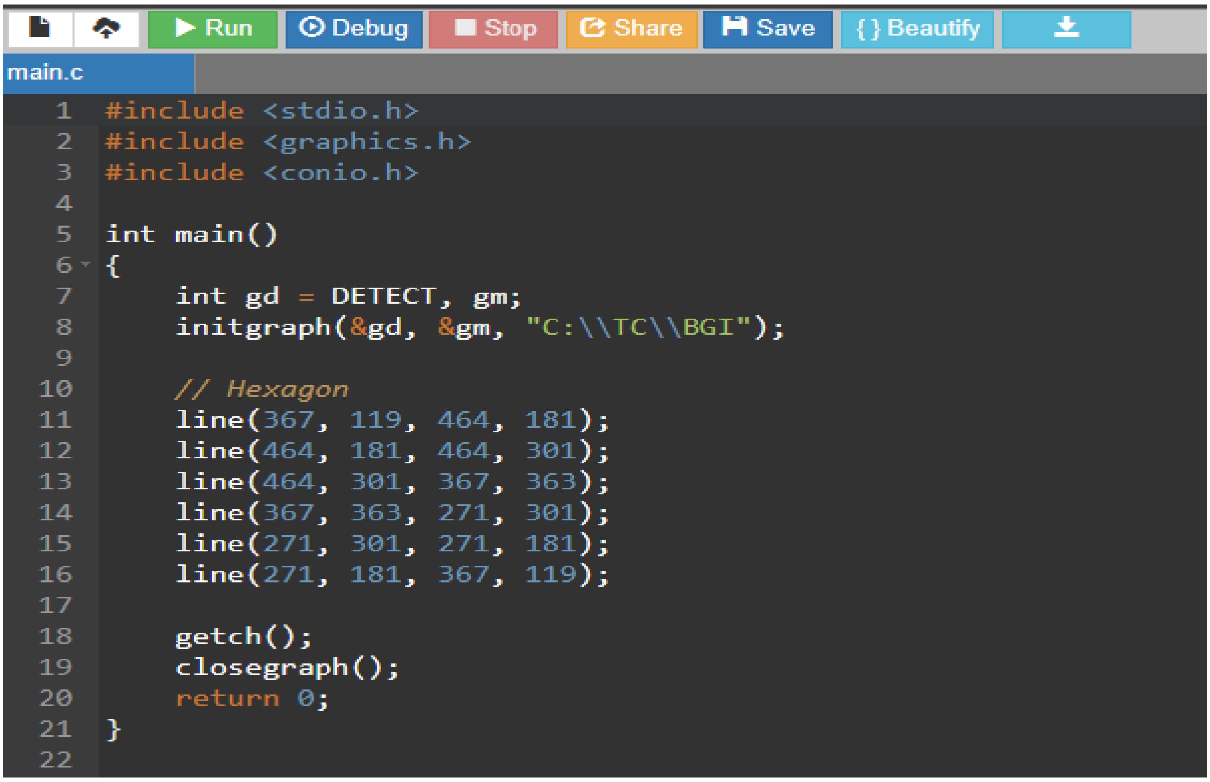
```c
#include <stdio.h>
#include <conio.h>
#include <graphics.h>

int main() {
    int gd = DETECT, gm;
    int x = 200, y = 200, r = 100;

    initgraph(&gd, &gm, "C:\\TC\\BGI"); // Initialize graphics mode

    // Set fill style to solid fill with yellow color
    setfillstyle(SOLID_FILL, YELLOW);

    // Draw circle with center (x,y) and radius r
    circle(x, y, r);

    // Fill circle with yellow color using floodfill
    floodfill(x, y, WHITE);

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

Output:



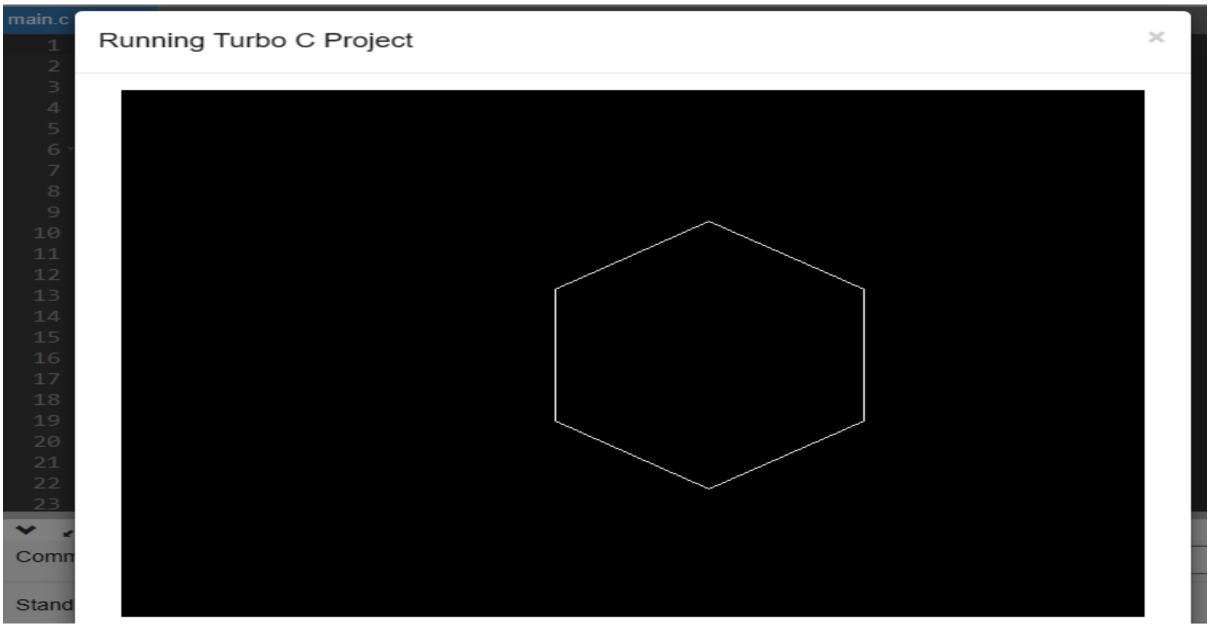
PRACTICAL 2:

Draw Hexagon



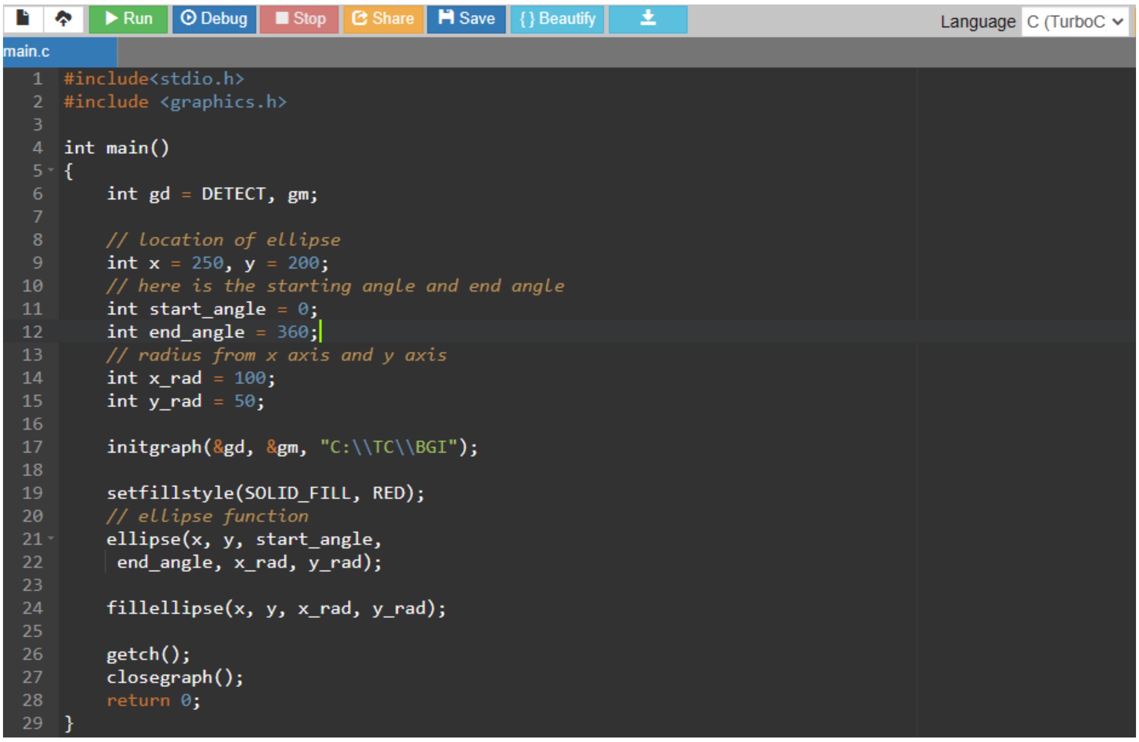
```c
#include <stdio.h>
#include <graphics.h>
#include <conio.h>

int main()
{
    int gd = DETECT, gm;
    initgraph(&gd, &gm, "C:\\TC\\BGI");

    // Hexagon
    line(367, 119, 464, 181);
    line(464, 181, 464, 301);
    line(464, 301, 367, 363);
    line(367, 363, 271, 301);
    line(271, 301, 271, 181);
    line(271, 181, 367, 119);

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

Output:



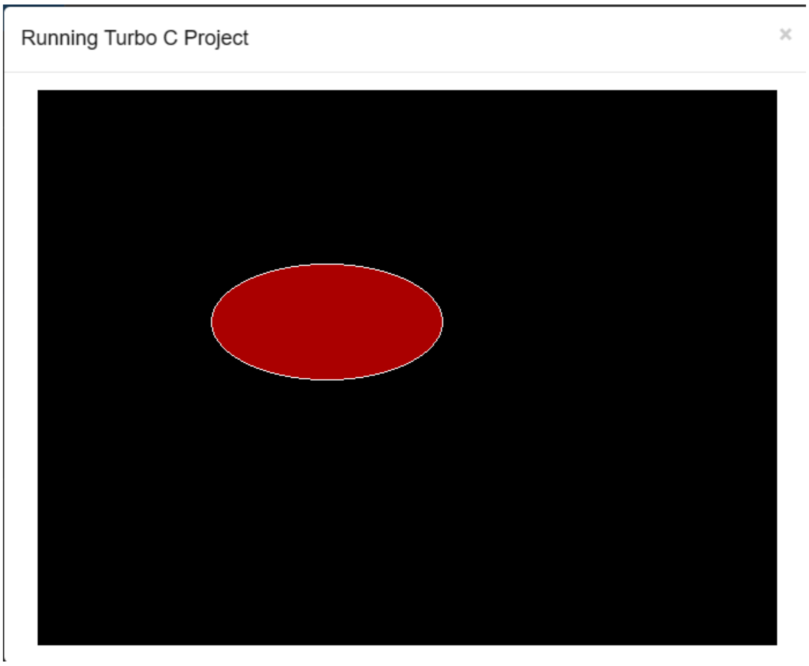
Practical 3

Draw a complete ellipse filled with red color.



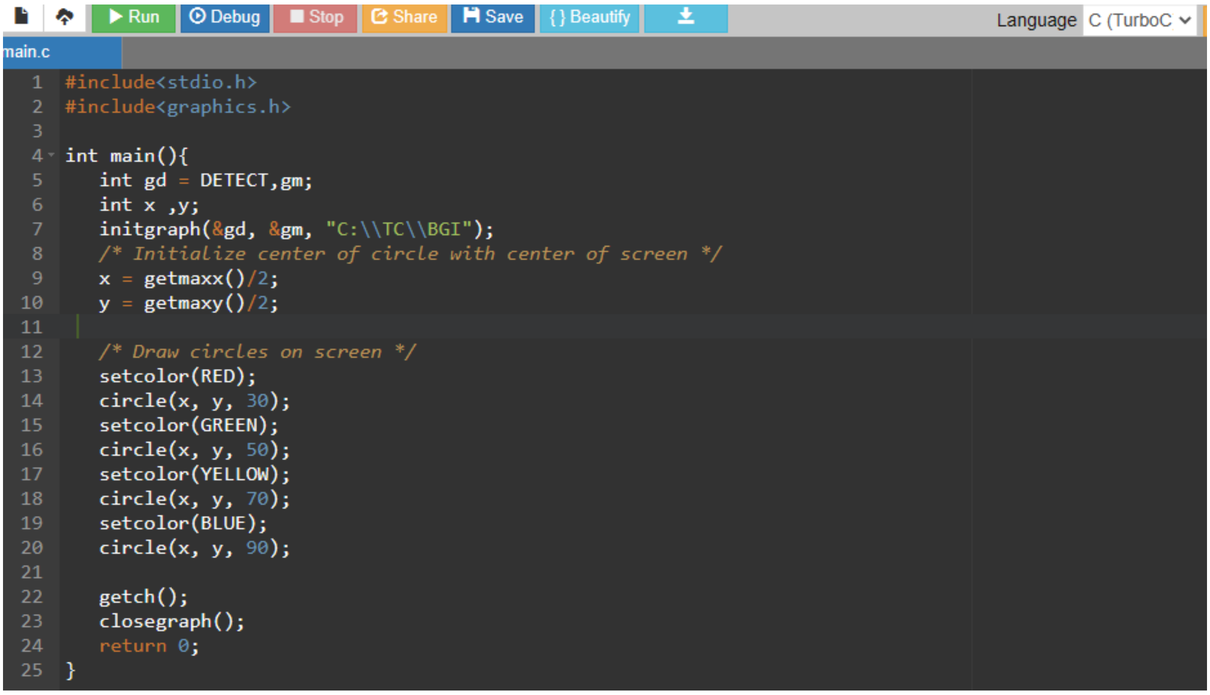
```c
#include<stdio.h>
#include <graphics.h>

int main()
{
    int gd = DETECT, gm;

    // location of ellipse
    int x = 250, y = 200;
    // here is the starting angle and end angle
    int start_angle = 0;
    int end_angle = 360;
    // radius from x axis and y axis
    int x_rad = 100;
    int y_rad = 50;

    initgraph(&gd, &gm, "C:\\TC\\BGI");

    setfillstyle(SOLID_FILL, RED);
    // ellipse function
    ellipse(x, y, start_angle,
     end_angle, x_rad, y_rad);

    fillellipse(x, y, x_rad, y_rad);

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

output



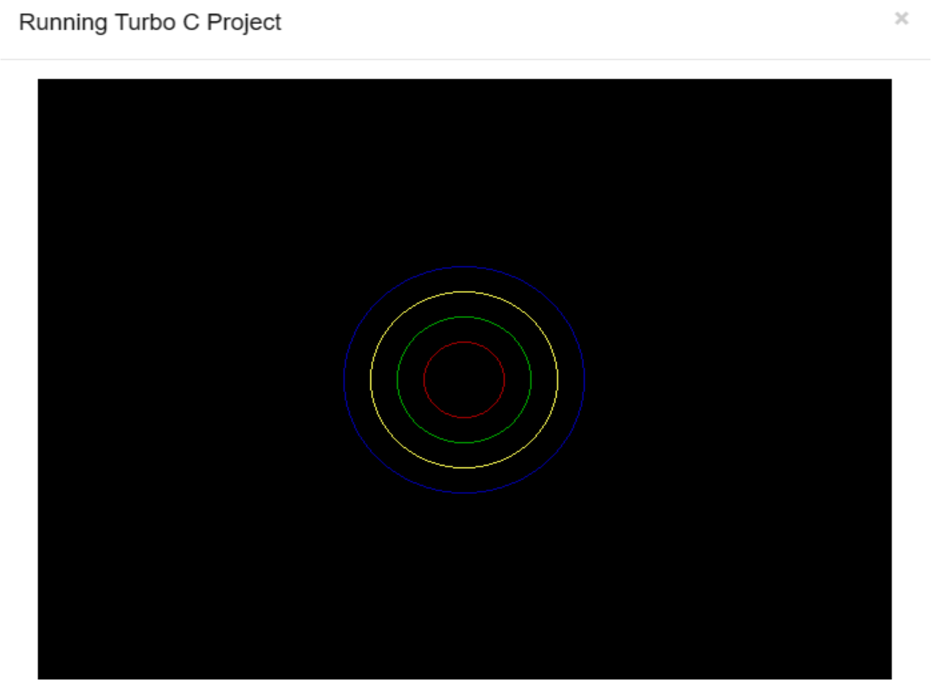
PRACTICAL 4:

Draw concentric circles with different color lines.



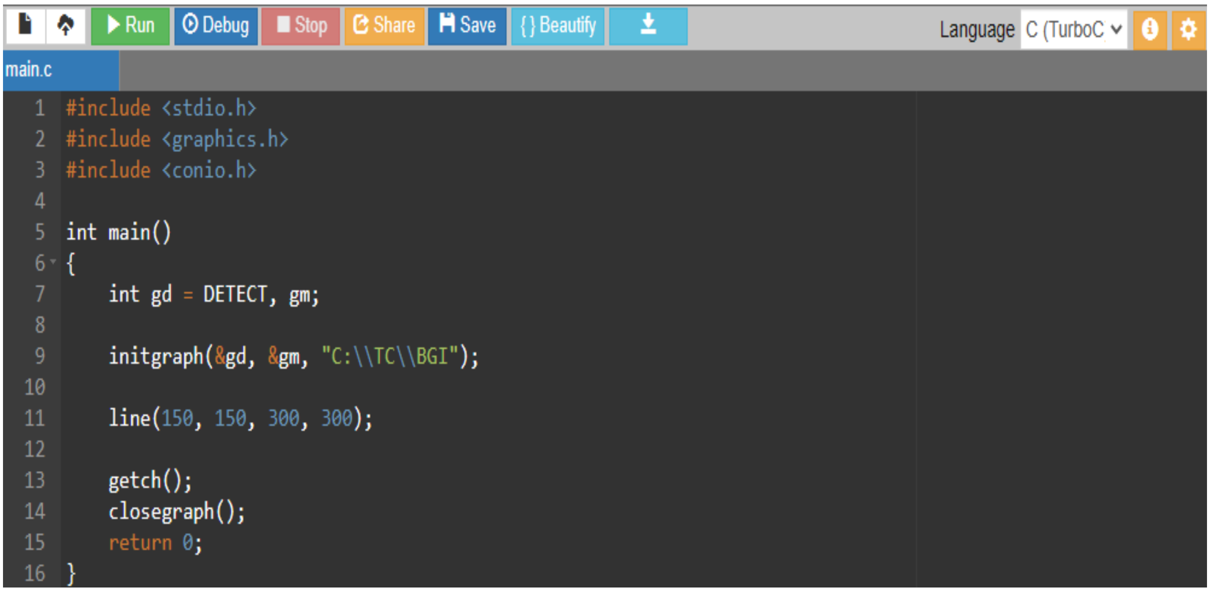
```
#include<stdio.h>
#include<graphics.h>

int main(){
    int gd = DETECT,gm;
    int x ,y;
    initgraph(&gd, &gm, "C:\\TC\\BGI");
    /* Initialize center of circle with center of screen */
    x = getmaxx()/2;
    y = getmaxy()/2;

    /* Draw circles on screen */
    setcolor(RED);
    circle(x, y, 30);
    setcolor(GREEN);
    circle(x, y, 50);
    setcolor(YELLOW);
    circle(x, y, 70);
    setcolor(BLUE);
    circle(x, y, 90);

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

Output:



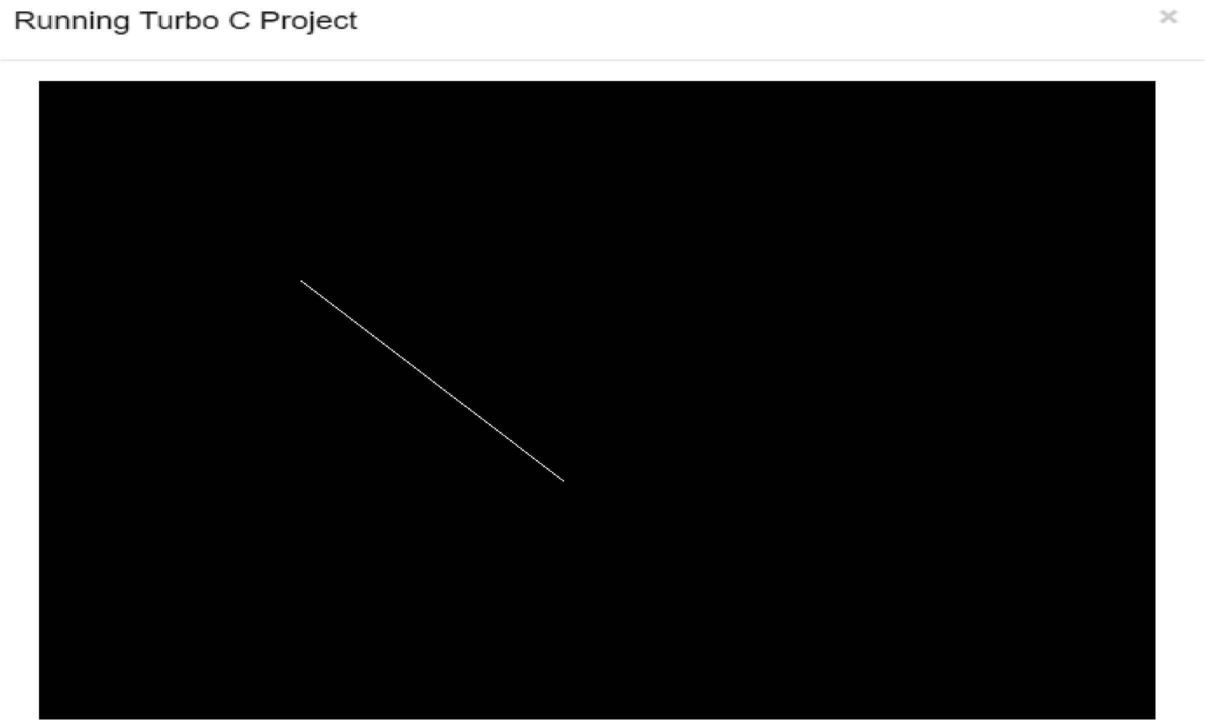
PRACTICAL 5:

Draw a line where coordinates are (150, 150, 300, 300).



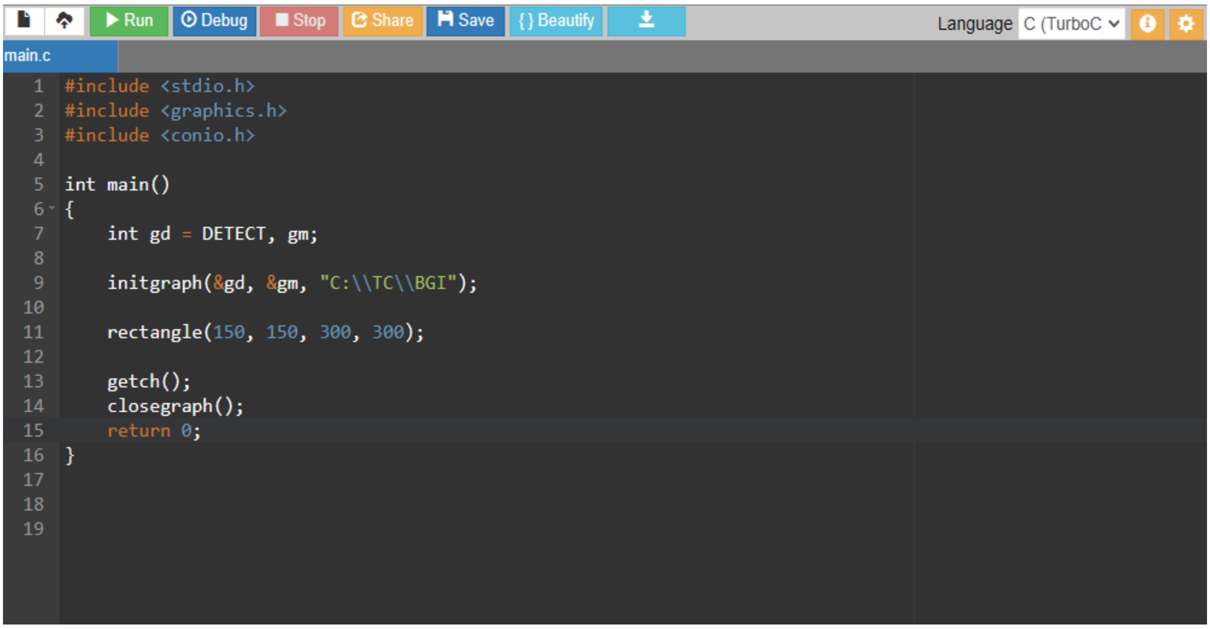
```
#include <stdio.h>
#include <graphics.h>
#include <conio.h>

int main()
{
    int gd = DETECT, gm;

    initgraph(&gd, &gm, "C:\\TC\\BGI");

    line(150, 150, 300, 300);

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

Output:


Running Turbo C Project

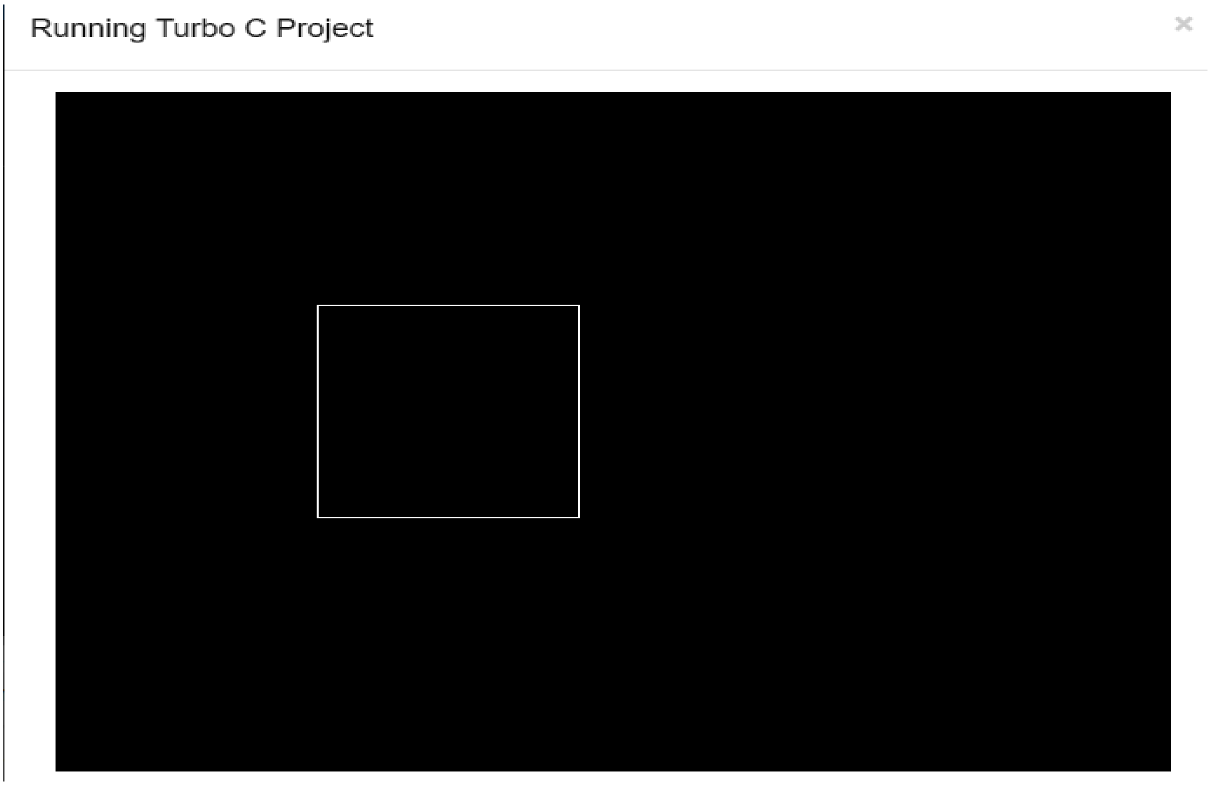
PRACTICAL 6:

Draw a rectangle with the coordinates of (150, 150, 300, 300).



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

int main()
{
    int gd = DETECT, gm;

    initgraph(&gd, &gm, "C:\\TC\\BGI");

    rectangle(150, 150, 300, 300);

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

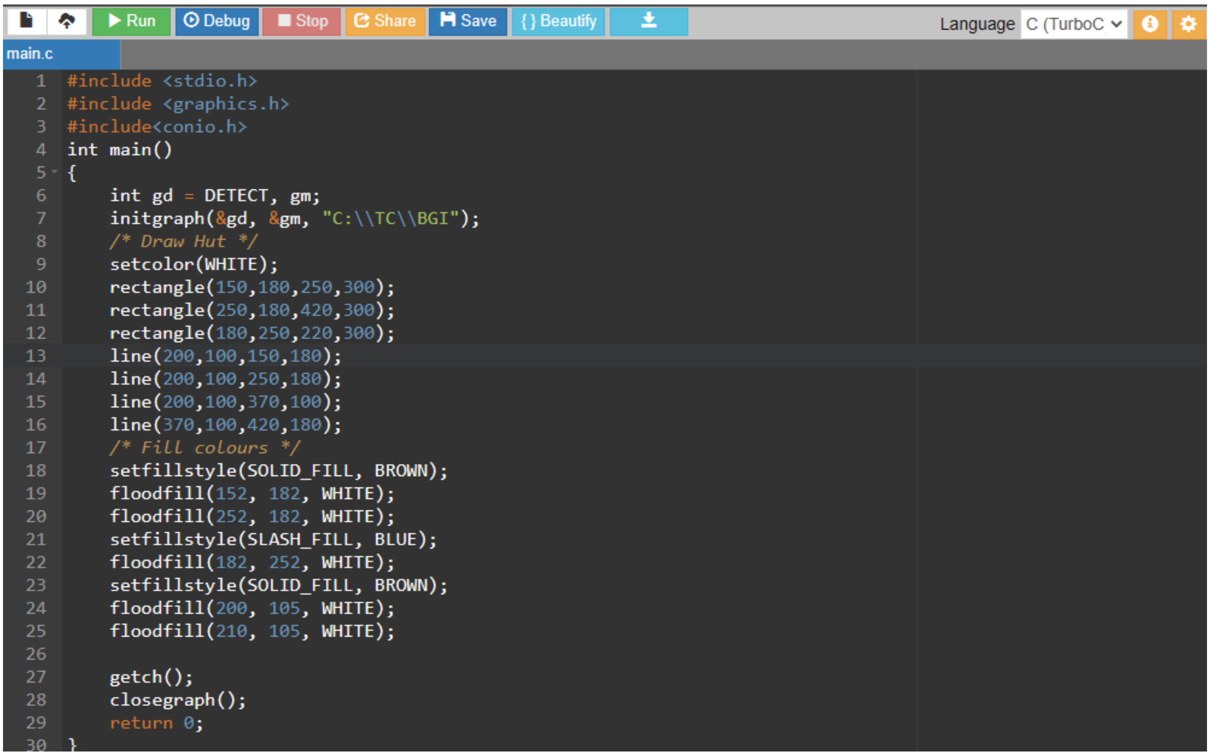
Output:



Running Turbo C Project

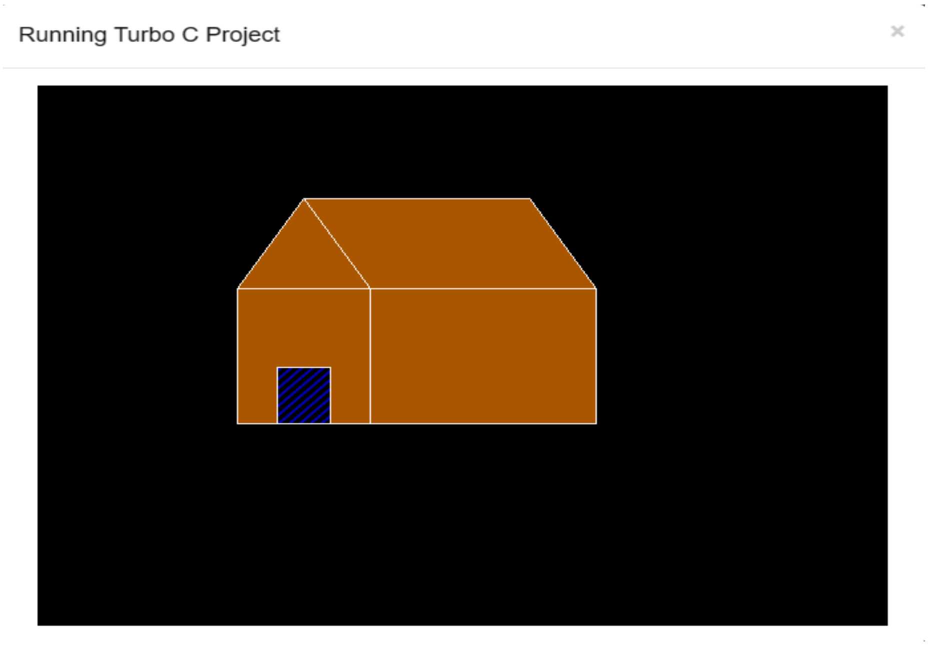
PRACTICAL 7:

Draw a hut.



```c
#include <stdio.h>
#include <graphics.h>
#include<conio.h>
int main()
{
    int gd = DETECT, gm;
    initgraph(&gd, &gm, "C:\\TC\\BGI");
    /* Draw Hut */
    setcolor(WHITE);
    rectangle(150,180,250,300);
    rectangle(250,180,420,300);
    rectangle(180,250,220,300);
    line(200,100,150,180);
    line(200,100,250,180);
    line(200,100,370,100);
    line(370,100,420,180);
    /* Fill colours */
    setfillstyle(SOLID_FILL, BROWN);
    floodfill(152, 182, WHITE);
    floodfill(252, 182, WHITE);
    setfillstyle(SLASH_FILL, BLUE);
    floodfill(182, 252, WHITE);
    setfillstyle(SOLID_FILL, BROWN);
    floodfill(200, 105, WHITE);
    floodfill(210, 105, WHITE);

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

Output:


Running Turbo C Project
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