```cpp
#include <graphics.h>
#include <iostream>
using namespace std;

// This program was modified in class during the 6th lecture
// It is originally written by Karla Fant for CS161
// The purpose is to demonstrate if statements and how a program goes together!

int main()
{
    // Here is where I am going to put my variables
    int window_size;
    int color;
    int circle_radius;
    char selection;  // what does the user want to do?
    int width, height;  // rectangle width and height

cout << "How big of a window do you want (pick a number less than 1200): ";
cin >> window_size;  cin.get();
initwindow(window_size, window_size);

cout << "What color do you want...enter in a number 1-15 (15 is white) ";
cin >> color;  cin.get();
setcolor(color);
setfillstyle(SOLID_FILL,color);

// Find out if they want to draw a circle or a rectangle
cout << "Do you want to draw a CIRCLE or a RECTANGLE? C or R: ";
cin >> selection;  cin.get();

if ('C' == selection) // Circle
{
    cout << "How big do you want the circle? ";
cin >> circle_radius;  cin.get();
    fillellipse(window_size/2,window_size/2,circle_radius,circle_radius);
}
else if ('R' == selection) // Rectangle
{
    cout << "How wide do you want the rectangle? ";
cin >> width;  cin.get();
cout << "How high should the rectangle be? ";
cin >> height;  cin.get();

    int startx = (window_size-width)/2;  // center the rectangle
    int starty = (window_size-height)/2;
    bar(startx,starty,startx+width,starty+height);  // "bars" are filled
}
else
{
    cout <<"Sorry you couldn't decide!" <<endl <<endl;
    settextstyle(0,0,6);  // 6 is BIG
    outtextxy(0,window_size/2,"TOO BAD!");
}
```
Now let's play with flood fill and styles!

```cpp
int fill;
cout << "PLEASE enter the fill style... 1 is solid";
cin >> fill; cin.get();
setfillstyle(fill, color);
fillellipse(window_size/2, window_size/2, circle_radius, circle_radius);

int fillcolor;
cout << "What color do you want to fill the outside? 0-15 ";
cin >> fillcolor; cin.get();
setfillstyle(SOLID_FILL, fillcolor);
floodfill(0, 0, color);

cout << "You need to hit a key on the keyboard"
    << " while in the graphics window to continue\n\n";

// keep the windows open longer.
getch();
cin.get(); // wait so the window doesn't go away

return 0;
```