1) (12.5 Points)
Write a complete console* ANSI-C program that calls the function $\text{MyMaxMin}(x, y, u)$, specified below.

a) (5 pts) Your complete ANSI-C program must call your $\text{MyMaxMin}(x, y, u)$ function; see part b) for details.
   - Assign the value of 123.45 to $x$ and -54.321 to the variable $y$; assign 0 to $u$.
   - Assign the value returned by the function $\text{MyMaxMin}$ to a suitable (local) variable.

b) (7.5 pts) Write your own C-function called $\text{MyMaxMin}(x, y, u)$.
If $u$ is “TRUE,” it returns the larger of the two values $x$ and $y$, i.e.,
   - if $x > y$ then $\text{MyMaxMin}(x, y, u)$ returns $x$;
   - if $x < y$ then $\text{MyMaxMin}(x, y, u)$ returns $y$.
If $u$ is “FALSE,” it returns the smaller of the two values $x$ and $y$, i.e.,
   - if $x > y$ then $\text{MyMaxMin}(x, y, u)$ returns $y$;
   - if $x < y$ then $\text{MyMaxMin}(x, y, u)$ returns $x$.

If $x = y$ then $\text{MyMaxMin}(x, y, u)$ returns either value. (They are identical, so it doesn’t matter.)
The arguments, $x$ and $y$ are of type double; $u$ is an integer.

Write the entire function, including function prototype, header, body and return statement using the appropriate variable types as specified above.

You are not allowed to use global variables in your program or function though you may use as many or as few additional local variables as you consider necessary.

Final Note: in your program (or function) do not include any input or output statements such as $\text{scanf}$ or $\text{printf}$ or any include files. You will be graded on program logic and syntax mistakes.

Console* means you must not include a LabWindows Graphical User Interface (GUI) or any (callback) functions to the GUI.
Solution:

double MyMaxMin( double, double, int );

main()
{
    double a = 123.45, b = -54.321, value_ret;
    int u = 0;

    value_ret = MyMaxMin(a, b, u);
}

double MyMaxMin( double x, double y, int u )
{
    if( u )
    {
        if( x > y )
            return x;
        else
            return y;
    }
    else
    {
        if( x > y )
            return y;
        else
            return x;
    }
}