CPSC-24500: Object-Oriented Programming

Week 8 Programming Assignment (20 pts)

The ShapeDrawDataServer application will read two XML files from the Internet, aggregate that data, and respond to client requests providing the aggregated data.

#	Requirement	Points
1	The InternetShapeDraw application must be developed entirely in Visual Studio 2017 and C#, be named "ShapeDrawDataServer", and successfully run in a standard MS Windows environment.	4
2	Download and parse the same XML file that we downloaded and parsed for last week's InternetShapeDraw application. The URL for the file is: http://www.epogue.info/CPSC-24500/Week07/InternetShapeDraw.xml You can reuse last week's sample code without modification.	2
3	Download and parse a new XML file that provides the colors in which to draw shapes. The URL for the file is: http://www.epogue.info/CPSC-24500/Week08/ShapeDrawColors.xml	6
4	Provide a sockets interface on port 11001 that responds to the "get-shapesandcolors;" (all lower case" request by returning an XML document similar to InteretShapeDraw.xml that is aggregated to include a color field and tags. See example at: http://www.epogue.info/CPSC-24500/Week08/ShapeDrawDataServerResponse.xml	4
5	Compile and utilize the ShapeDrawDataClient to test your application.	2
6	Update the InternetShapeDraw application so that it utilizes the socket interface provided in step 4 above and displays the shapes with the given colors.	6*
7	Submit two files. The first file should be the single C# file that contains your code. It should be named "Program.cs" and should contain all of the custom programming that you implemented for this assignment. You should include your full name in a comment at the beginning of the C# file that you submit. The second file should be the release executable called "ShapeDrawDataServer.exe". You should have test this executable by double clicking on it from Windows File Explorer to make sure that it works.	2

If your solution does not compile and execute without errors when it is submitted, you will lose at least 4 points AND I may send it back to you to fix and resubmit before I attempt to continue grading the assignment.

Do not copy another student's work. I may use MOSS to detect plagiarism and will not ask for clarification if MOSS concludes you have copied the assignment.

Tackle this problem gradually and make sure that you review the examples that we cover in class. The main goal of our discussions, lectures, and examples this week are intended to allow you to successfully deliver this application. Also, don't hesitate to post something on our discussion board or to reach out to me directly if you need assistance.

I hope that you have learned by this point in the class to pace yourself and not attempt to do the assignment in one night.

Good luck!