CPSC-24500: Object-Oriented Programming

Week 7 Programming Assignment (24 pts)

After completing the "Create a Picture Viewer" tutorial, you will develop InternetShapeDraw. The InternetShapeDraw application will download an XML file from the Internet, parse the XML, and draw the shapes contained in the XML file to a .NET (C#) window.

#	Requirement	Points
1	Complete the Visual Studio "Create a Picture Viewer" tutorial [link]. This is identified and scored in question #2 of the Week 7 Questions Assignment.	-
2	The InternetShapeDraw application must be developed entirely in Visual Studio 2017 and C#, be named "InternetShapeDraw", and successfully run in a standard MS Windows environment.	6
3	Download an XML file from the Internet. The URL for the file is: http://www.epogue.info/CPSC-24500/Week07/InternetShapeDraw.xml Note: If you open this URL link in your browser, you should be able to view the XML file contents. The file may change during the week so make your solution is reasonably generic and test it multiple times during the week.	4
4	Parse the contents of the XML file to extract the shapes.	4
5	Store the shapes contained in the XML file in a ShapesModel class that at a minimum includes a Shape class and an ArrayList.	4
6	Create a ShapesView class that can draw Rectangles and Ovals.	4
7	Bonus points for implementing a ShapesController class that links ShapesModel and ShapesView classes together. Note that any attempt to create a separate ShapesController class will get you at least a point or two.	6*
8	Submit two files. The first file should be the single C# file that contains your Form file. It should be named "Form1.cs" and should contain all of your 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 "InternetShapeDraw.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 6 points AND I will 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!