**CS 3260**

**C# .NET Software Development**

**Lab 4**

**Version 1.0**



**Objectives:**

For this lab you are going to add to your Lab 03 additional design and implementation code to your C# GUI application for the “Object-Oriented Employee Database Program.” From Lab #03, your company **World-Wide Wombats** should have four employee classes; 1) ***Salary*** employees; 2) ***Hourly*** employees **(sealed)**; 3) **Sales** employees **(sealed)**; 4) **Contract** employees **(sealed)**, 5) An **abstract** **Employee** class as the base class. These classes should have been thoroughly tested in Lab #03.

Now add a ***BusinessRules*** class and in that class place an array of four (4) references to Employee objects. Add an indexer to your BusinessRules class to provide the capability to add and retrieve employee object references to/from this array. Note that the next homework assignment will require you to make a dynamic array class that will dynamically resize, as the number of employee references exceeds four (4). The UML diagram for your BusinessRules class is shown in Fig. 1.

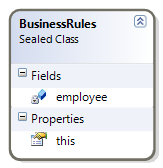


Figure 1BusinessRules UML Diagram

Add to this ***BusinessRules*** class any Fields, Properties or Methods you need to make the object of this class work properly. NOTE this class must be a “***Singleton***.”

Make sure that your GUI Form has a “***Test Data***” Button to fill in any fields you need or use. Also add additional event handlers, controls and code you need to test and demonstrate that all your classes are being used properly!

Make sure you have UML diagrams for all your classes.

|  |  |
| --- | --- |
| **Description** | **Points possible** |
| Assignment meets Grading Guidelines:  o Source code files contain a declaration that you did not copy any code, except that provided.  o Assignment has been properly submitted to Canvas  o Code meets Style Guidelines.  o Code contains the required Project and method Prolog’s. |  |
| o Lab meets all of the specifications for this lab. |  |
| o Lab is elegant, efficient and works error free. |  |
| Total | 10 |

Zip your entire Project folder, make sure it is named correctly and submit to Canvas. Make sure that this zipped folder contains your UML diagrams.