CS 2750 Assignment 2
CASE Tools and Class Diagrams

The Unified Modeling Language (UML) is useful for expressing the results of Object-Oriented analysis and design (OOA and OOD). However, the diagrams representing even small systems can become complex and numerous. Creating and managing these diagrams by hand is prohibitively time consuming and does not take advantage of the interconnectedness of the diagrams. The full capability of the UML is only achieved by using an appropriate computer aided software engineering (CASE) tool. CS 2750 will use Microsoft Visio this semester. Although not as full-featured as some other tools, it available to students at a low cost and does have many good features.

Assignment

Part A

Create and print the following UML class diagram using MS Visio:

<table>
<thead>
<tr>
<th>Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>-name : String</td>
</tr>
<tr>
<td>#id : long</td>
</tr>
<tr>
<td>-address : Address</td>
</tr>
<tr>
<td>+Person(in name : String)</td>
</tr>
<tr>
<td>-askForRaise(in salary : double) : bool</td>
</tr>
<tr>
<td>#catchBus() : void</td>
</tr>
</tbody>
</table>

Hints:

- Use a combination of C++ and VB data types
- Create an Address class on another diagram (which is not printed); this class will then be available as a data type for use in class person.
- To create the second diagram:
  - Outside of the class diagram, right click the mouse and select “Insert UML Diagram” from the popup menu.
  - Select the default “Static Structure” and click OK
  - Add the Address Class (no detail beyond the class name is needed)
Part B

Without removing information from the diagram, print the diagram without the -, +, or # on the left hand side and without showing the operation parameters.

Part C

Without removing information from the diagram, print the diagram showing only the class name.

Part D

Answer the following questions:

1. Which attribute has private visibility? __________________________
2. Which attribute has public visibility? __________________________
3. Which attribute has protected visibility? ________________________
4. Which operation has private visibility? _________________________
5. Which operation has public visibility? _________________________
6. Which operation has protected visibility? _______________________

Submit

Turn in (paper form)
• Three diagrams
• The answers to the six questions