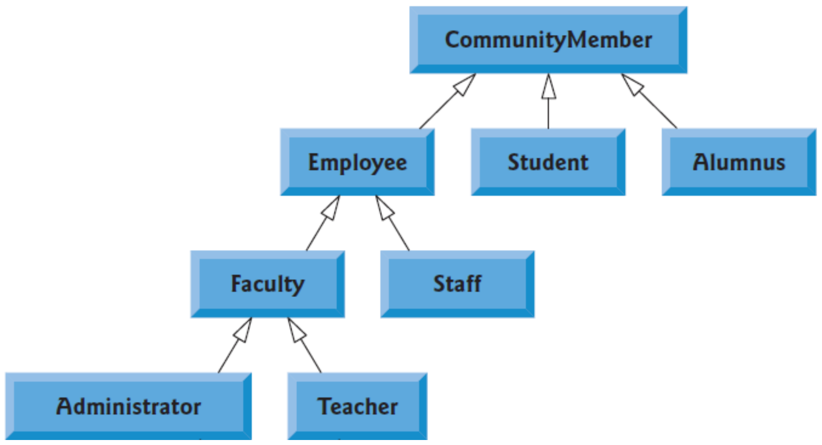
CS120: Programming 2

CommunityMember Term Project

Due Date: Thursday April 8th, @ 2 pm



Description: Apply what you have learned in OOP, Inheritance, Polymorphism and Files I/O techniques **(if topics are covered)** to build the above shown **CommunityMember** hierarchy. For all classes we need to store the following information:

1. **ID:** unsigned long int
2. **FirstName:** string
3. **LastName:** string
4. **Address:** string
5. **CellPhone:** unsigned long int

For each of the derived classes, we need to store the information shown in the below table:

Class	Attributes	Type
Employee	**Salary**	**double**
Staff	**Department**	**string**
Faculty	**Specialty**	**string**
	AcademicRank	**string**
Administrator	**Position**	**string**
Teacher	**HoursPerWeek**	**unsigned int**
Student	**GPA**	**double**
	CourseLoadHours	**unsigned int**
Alumnus	**YearOfGraduation**	**unsigned int**

	CurrentJob	**string**

Requirements

1. For every class, you need to build a **default/parametrized constructors**,
2. For every attribute in every class, you need to build a **set/get** function,
3. For every class, you must implement one function **“ReadData”** to read all the attributes of the class,
4. For every class, you must implement a **“Print”** function to print all attributes of that class to the screen,
5. Your program must be able to write all the information read from the user into the binary file **“Community.dat”**, **(if topic is covered)**
6. Your program should be able to read and append to the **“Community.dat”** file as needed, **(if topic is covered)**
7. **ReadData** and **Print** functions must be implemented using Polymorphism techniques, **(if topic is covered)**
8. All objects’ attributes must be read from the user and written to the output file (or screen),
9. It is not known how many members will be added to the output file.

Teamwork

1. You need to divide yourselves into groups of 4 students each maximum,
2. Every group must choose a leader amongst themselves,
3. The leader is responsible (in addition to programming) of assigning tasks to every student in the group,
4. At the end of the project’s due date, the leader is responsible of uploading all project’s files to the specified folder on the Blackboard system (will be announced later),
5. The leader must specify the tasks assigned to each member of the group in the final report.