EX015 – EXAMPLE In-Class Assignment
Derive a Student Class from the SimplePerson class

Due Date:
>
> 11:59 PM the day after this assignment is presented in class
> Anything after that receives a zero (no partial credit for late submissions)
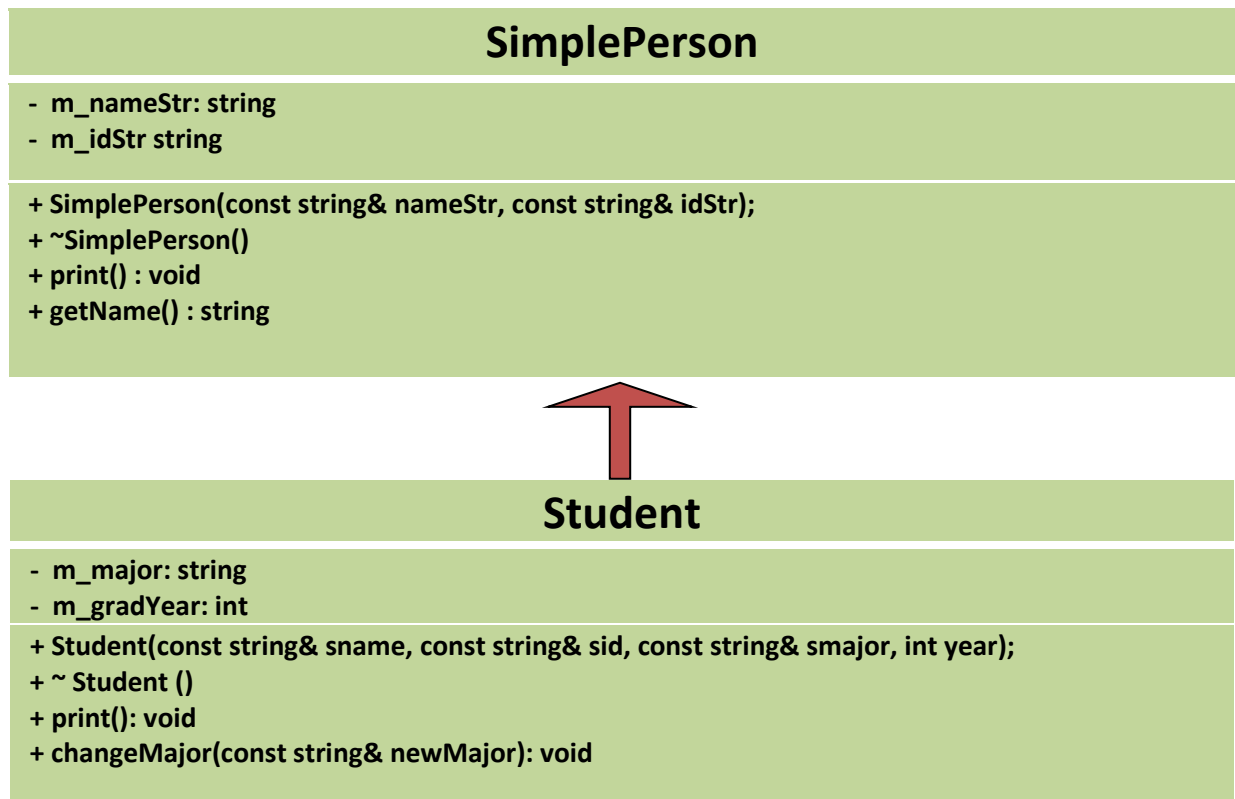
Grading:
>
> N/A

Topics:
>
> Create C++ classes from UML
> Explore relationship of UML hierarchy to C++ inheritance

Task 1
Implement the two classes: SimplePerson and Instructor as described in the below UML diagrams

SimplePerson
- **m_nameStr: string** - **m_idStr string**
+ **SimplePerson(const string& nameStr, const string& idStr);** + **~SimplePerson()** + **print() : void** + **getName() : string**

Student
- **m_major: string** - **m_gradYear: int**
+ **Student(const string& sname, const string& sid, const string& smajor, int year);** + **~ Student ()** + **print(): void** + **changeMajor(const string& newMajor): void**

Task 2
Create a file named PersonTest.cpp to test your classes.

In this file:

> Using cout print your first and last name to the screen
> Create a simple person. Name the variable sp1
> Call the print() function of that person
> Use sp1.getName() in conjunction with a "cout <<"

> Create a student majoring in Physics. Name the variable stud1
> Call the print() function of that student
> Store the name of that student in a variable named studName that is local to main()
> Use cout to output studName to the screen
> Change the student's major to Math
> Call the print() function of that student

> Create a second Student majoring in Engineering. Name the variable stud2
> Call the print() function of this student
> Set stud2 = stud1
> If it compiles
> > call the print() function of stud2
> If not delete that line (i.e. delete the line: stud2 = stud1)

Hint
There is starter code for this on D2L
Suggest using EX015_StudentBlanks.tar.gz
Move the source code files to a directory (folder) such as:
> …/Documents/Programs/InClass/EX015
The starter code does come with a makefile usable in Geany

Turn-In
In Linux, using the folder browser
Go to the folder containing your source code files
Such as
> …/Documents/Programs/InClass/EX015
Make sure ONLY your source code files are in that directory (including the makefile)
Right click on the folder (e.g. EX015)
Select Compress
Change the filename to include your last name
> Example: EX015_LastName.tar.gz
Click create
Drop the compressed file (EX015_LastName.tar.gz) into the appropriate In-Class drop box on D2L