Homework #2 (10 points)

1. Completed Class Hierarchy UML diagram for People:

```
person
- profession: string
- age: int
+ setProfession(prof: string): void
+ setAge (a: int): void
+ getProfession(): string
+ getAge(): int
+ display(): void

athlete
- sport: string
+ setSport(s: string): void
+ getSport(): string
+ display(): void <<override>>

teacher
- subject: string
+ setSubject(s: string): void
+ getSubject(): string
+ display(): void <<override>>
```

2. Login to linux, notice the new directory called **person**, type in the following commands:

   - `ls -ald person`
   - `cd person`
   - `ls -al`

3. After the last command you should see 7 files, 3 header files – 3 cpp files and an application (test driver program) main.cpp

4. Implement the Class Inheritance diagram by completing the base class (person.cpp) the derived classes athlete and teacher (athlete.h athlete.cpp teacher.h and teacher.cpp). Remember to comment your method headers in their corresponding header files.

5. Compile your applications with this compile line: `g++ person.cpp athlete.cpp teacher.cpp main.cpp`

6. Run your application: `.a.out`

Note:

Homework 2 demonstrates students’ ability to read a Class relationship UML diagram. Implement classes through inheritance. Build Classes to required specifications. Compile and run a test driver program that instantiates Class objects and test their methods. Method overriding (display() method) in derived classes. Document your Classes by commenting your public methods as described in lecture.