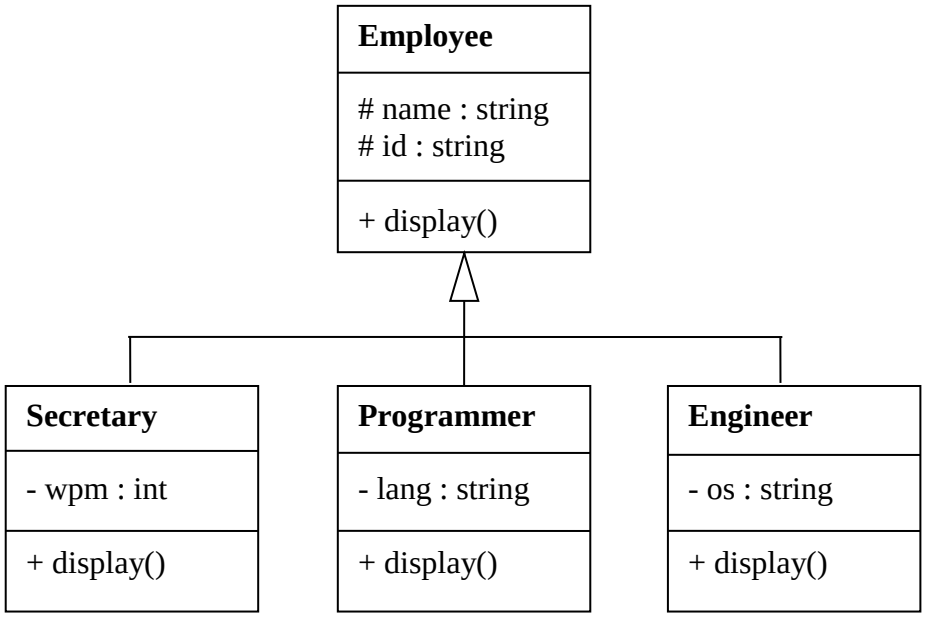
Software Implementation Practical: Inheritance

1. Implement in its entirety the Shape/Square/Circle example discussed in class (if copy and pasting from class notes be wary of changes to characters especially double quotation marks).

2. Define a class 'Employee' containing the name and staff id number of a member of staff in an organisation. Define sub-classes representing a Secretary who can type at a given number of words per minute, a Programmer who has expertise in a specific programming language, and a network Engineer who implements in a preferred operating system. Write a Main() test program to create 4 employees, one of each type. Each object should then call it's display() method to print the details of their attributes to screen. Your program should conform to the following class diagram (*although constructors for each must also be written*).



Notes:

a) You will need to design appropriate constructors for all classes.
b) No other methods other than display() are needed.
c) Pass all parameters to the constructor of the derived class and thence use *super* to assign inherited attributes.
d) Instantiate each object with, for example:
Programmer workerOne = new Programmer("John", "ABC26", "C-Sharp");