

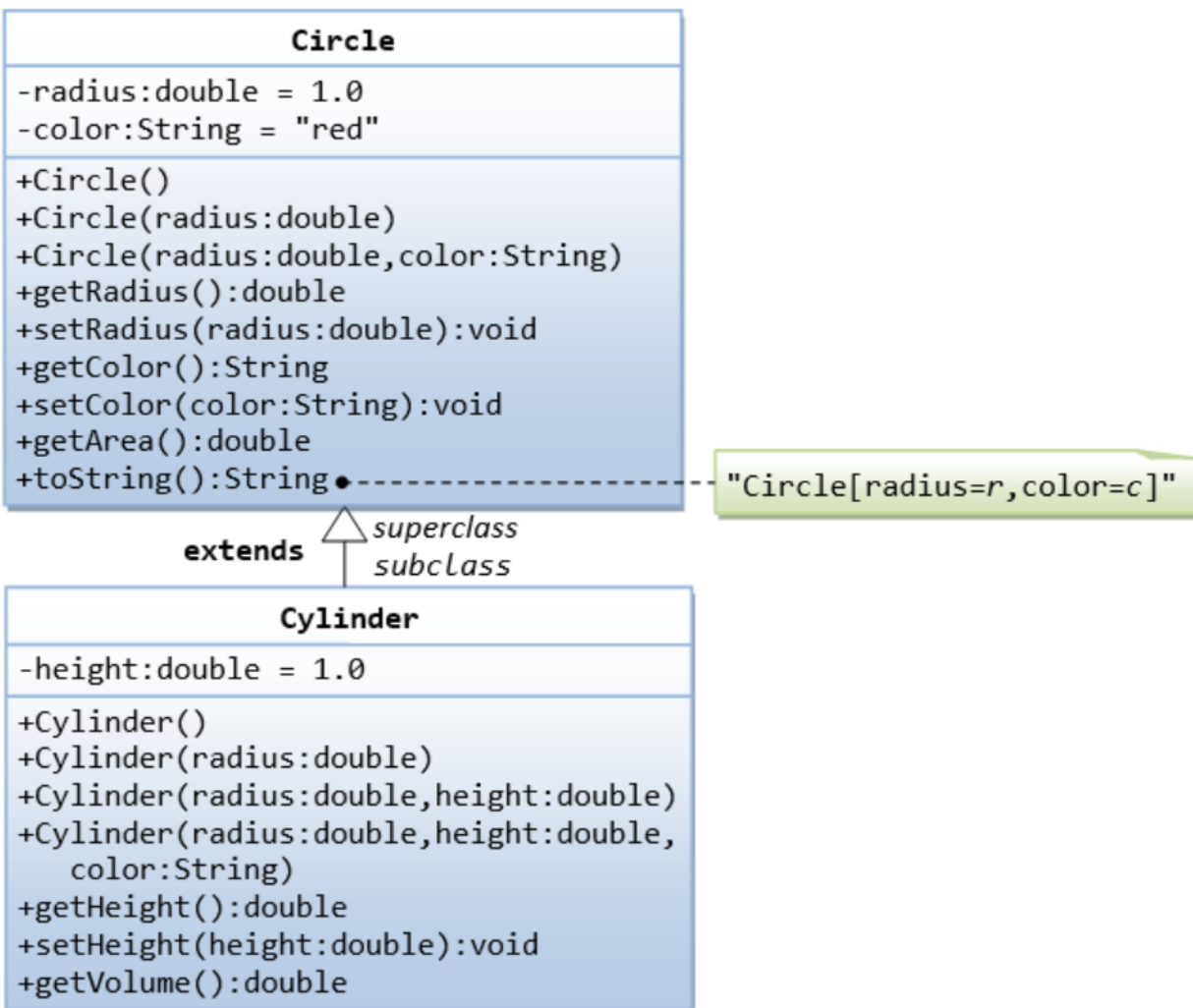


An Introduction to OOP Inheritance

These exercises shall guide you through the important concepts in inheritance.

Problem # 1:

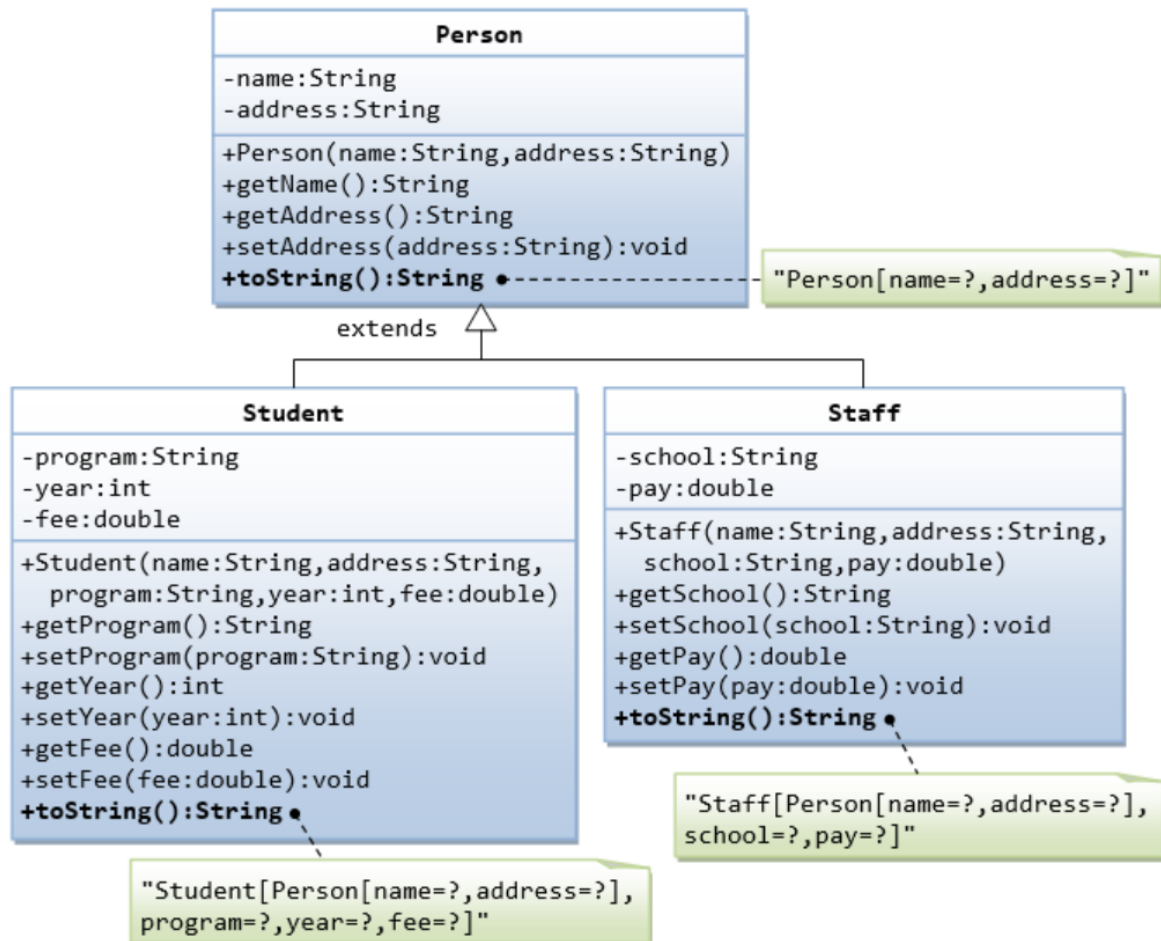
In this exercise, a subclass called Cylinder is derived from the superclass Circle as shown in the class diagram (where an arrow pointing up from the subclass to its superclass). Study how the subclass Cylinder invokes the superclass' constructors and inherits the variables and methods from the superclass Circle.



Make a driver program that creates 3 Cylinder objects (1 by using default constructor and 2 by using parameterized constructors), then set the height and then get the volume.

Problem # 2:

Write the classes as shown in the following class diagram. Mark all the overridden methods with override keyword. The attributes in the person class are protected.



Make a driver program that creates 2 students and 2 staff and print their information using the **toString** method.