تمارين اليوم الرابع

```
Person
              -name:String
              -address:String
              +Person(name:String,address:String)
              +getName():String
              +getAddress():String
              +setAddress(address:String):void
              +toString():String .
                                                     "Person[name=?,address=?]"
                      extends
               Student
                                                         Staff
                                          -school:String
-program:String
-vear:int
                                          -pay:double
-fee:double
                                          +Staff(name:String,address:String,
+Student(name:String,address:String,
                                            school:String,pay:double)
  program:String,year:int,fee:double)
                                          +getSchool():String
+getProgram():String
                                          +setSchool(school:String):void
+setProgram(program:String):void
                                          +getPay():double
                                          +setPay(pay:double):void
+getYear():int
+setYear(year:int):void
                                          +toString():String •
+getFee():double
+setFee(fee:double):void
                                               "Staff[Person[name=?,address=?],
+toString():String •
                                              school=?,pay=?]"
        "Student[Person[name=?,address=?],
        program=?,year=?,fee=?]"
```

```
Point
 -x:float = 0.0f
 -y:float = 0.0f
 +Point(x:float,y:float)
 +Point()
 +getX():float
 +setX(x:float):void
 +getY():float
 +setY(y:float):void
 +setXY(x:float,y:float):void
 +getXY():float[2]
                                           (x,y)
 +toString():String •
           extends
               MovablePoint
-xSpeed:float = 0.0f
-ySpeed:float = 0.0f
+MovablePoint(x:float,y:float,
   xSpeed:float,ySpeed:float)
+MovablePoint(xSpeed:float,ySpeed:float)
+MovablePoint()
+getXSpeed():float
+setXSpeed(xSpeed:float):void
                                              (x,y), speed=(xs,ys)"
+getYSpeed():float
+setYSpeed(ySpeed:float):void
+setSpeed(xSpeed:float,ySpeed:float):void
                                              x += xSpeed;
+getSpeed():float[2]
                                              y += ySpeed;
+toString():String◆
                                              return this;
+move():MovablePoint ◆
```

Hints

- 1. You cannot assign floating-point literal say 1.1 (which is a double) to a float variable, you need to add a suffix f, e.g. 0.0f, 1.1f.
- 2. The instance variables x and y are private in Point and cannot be accessed directly in the subclass MovablePoint. You need to access via the public getters and setters. For example, you cannot write x += xSpeed, you need to write setX(getX() + xSpeed).