

Assignment A2 CS1110 Fall 2009
Due 22 September, IN CLASS

At some point during class on 22 Sept., the assignment will be collected. That is the only time that it can be submitted (unless one has a valid, reasonable excuse).

This assignment asks you to draw a few objects (manila folders). The purpose is to ensure that you know how to draw them. This assignment shouldn't take more than 15 minutes.

Remember: Any class that does not extend another class automatically extends class `Object`, which is in package `java.lang`. So, writing `public class Whatever {...}` has exactly the same effect as `public class Whatever extends Object {...}`. Class `Object` has two important functions: `equals(Object)` and `toString()`.

Draw an object of each of the following 4 classes. *Include the partition for class `Object`.* When finished, you should have drawn four objects.

Do not draw any file drawers or static components; points will be deducted if you do. When done, read the notes in the next column, carefully.

```
public class Ex {
    public static final int FIVE= 0;

    private int h;
    public Ex(int ph) {
        h= ph;
    }

    public int getH() {
        return h;
    }

    public String toString() { ... }
    public static int what(int x) {
... }
}

public class Sub extends Ex {
    private int k;

    public Sub(int pk) {
        k= pk;
    }

    public String toString() { ... }
}

public class Time extends Sub {

    private int p;
}
```

```
public class SS1 extends Sub {
    public SS1() {
        super(5);
    }

    public int hPlus1() {
        return getH()+1;
    }

    public String toString() { ... }
}
```

Notes One semester, when we gave this homework, some students did so miserably that we gave them another chance to learn. So that you don't have this problem—we won't be giving second chances—, here are notes that we gave out to the students who did things wrong. After completing this assignment, read through these notes and see whether you made the same mistakes. If so, correct them.

Note 1. You did not follow directions at all. We do not see, separately, an object of `Ex`, an object of `Sub`, an object of `SS1`, etc. You may have put them all together in one picture, but that is not what we asked for and it shows no understanding of drawing objects. –20 points.

Note 2. In a folder like one for `SS1`, you placed all the components together in one place. You did not put those for `Object` on top, then those for `Ex`, then those for `Sub` next, and finally those for `SS1` at the bottom. –50 points.

Note 3. You did not draw field `p` of `Time` as a variable—either with a line after it or a box after it. –5 points.

Note 4. You left off the part for superclass `Ex` and/or `Sub` in your diagrams. You did not follow directions. –20 points.

Note 5. You did not draw variables correctly. They should be drawn with the name of the variable followed either by an underline with the value on it or by a box with the value in it. –5 points.

Note 6. Method `what` and field `FIVE` in class `Ex` are static. Therefore, they should not be drawn in each folder of class `Ex`—they belong separately in the file drawer for `Ex`, which should not be drawn. –5 points.

Note 7. In drawing a folder for `Time`, you put in it a place for `SS1` components. That is not correct. `Time` extends `Sub`, not `SS1`. –15 points.

Note 8. You put in some static components or drew the file drawer. –10 points.