

IST 256  
Lab Week 14, Wednesday, April 28, 2010  
Exam Review Questions

**1. Reading a File into an Array of Class Objects and using it**

Suppose that we have a file Pictures.txt that contains information about images. Each line of the file has the name of the image, the name of the photographer, the number of prints sold and the type (either Color or B&W for black and white). An example file might look like:

```
MountainAdams,40,B&W
Workers,Salgado,31,B&W
Flower,Mapplethorpe,25,Color
Baseball,Allen,200,Color
Woman,Lange,38,B&W
```

a. First design a class that is suitable to keep the data from each line of this file. The name of the class should be Picture and it should have fields for imagename, photographer, numprints, and medium. These fields should all be public and there should be one Constructor method that initializes the fields. No other methods are required at this time.

b. Write the declaration of a one-dimensional array of objects of the type Picture defined by the class in part a. The array should allow up to 12 elements.

c. Write the code that will read the file "Pictures.txt" and put the contents into the one-dimensional array of Pictures declared in part b. It should also save the number of pictures read from the file. (In the interests of brevity, you can make the code be short.)

d. After reading the file Pictures.txt into the array of Pictures, the program should compute the number of prints sold that are B&W and the number of prints sold that are Color. Show the code and the declaration of two variables to hold the two numbers.