

IST 256
Lab Week 15, Monday, April 27, 2009

Exam Review
You are not required to hand in this lab.

1. Write the piece of code that would declare a two-dimensional array of Integers with 5 rows and 10 columns. The name of the array should be *numbers*.

2. Given the array declaration for *numbers* in the previous question, assume that you have the following code to assign a value to each element of the array:

```
For row = 0 to 4
  For col = 0 to 9
    numbers ( row, col ) = row + col
  Next
Next
```

After this coded is executed, give the values of the following array elements:

```
numbers ( 0, 0 )
numbers ( 2, 3 )
numbers ( 4, 4 )
```

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

Mountain,	Adams ,	40,	B&W
Workers,	Salgado,	31,	B&W
Flower ,	Mapplethorpe,	25,	C
Baseball,	Allen,	200,	C
Woman,	Lange,	38,	B&W

Write the code that declares a record structure suitable for each line of data from this file, i.e. each record should have a field for *imagename*, *photographer*, *numprints*, *medium*.

4. Write the declaration of a one-dimensional array of records of the type declared in the structure in question 3. This array should have 12 elements.

5. Write the code that will read the file *Pictures.txt* and put the contents into the one-dimensional array of records declared in question 4.

6. After reading the file *Pictures.txt* into the array of records, the program should compute and display the average number of prints sold for photographers of color images and the average number of prints sold for photographers of black and white images. Each average should be displayed in a Label that should appear something like:

Average of color images is 112.5

Average of black and white images is 36.33

Write the code that will compute these averages and display them.