

COMP202
Instructor: Ladan Mahabadi
March 31, 2008

Write a class FileIO that upon executing the following command:

```
java FileIO one two three four
types in
1:
one 2:
two 3:
three 4:
four
```

Write your program so that it works for any in-line argument entry (i.e. the choices of one, two, three, four are arbitrary)

Ladan Mahabadi
Today, 10:48 AM
Deleted: Tab

Ladan Mahabadi
Today, 10:50 AM
Added Text

Pigeons and a Bucket

Imagine you see a flock of pigeons on the ground swarming around a bucket of seed. Write a program that simulates survival of fittest as follows:

Your program should ask the user for the number of pigeons. If the number is less than five then prompt the user for pigeons' information, and other wise randomly generate. Pigeons have

Names (strings between 1 and num)
Strength values (a double between 1 and 10)
Position (a Point between on the 10 X 10 grid)
Distance (a double value indicating each pigeon's distance to the bucket)

And they share a bucket that is represented as a point

Your program should simulate the struggle between the pigeons as follows:

Randomly pick a pigeon, go through the array list (called flock) that contains all pigeons, and find the first occurrence of a pigeon with a smaller strength that is closer to the bucket. If such a pigeon is found, remove that pigeon and move your first pigeon to that position.

Continue this process until one of the pigeons reaches the bucket (i.e. distance becomes zero)

Display the surviving flock information (i.e. name, position)

Pigeons and Files:

Your program should retrieve the number of pigeons, and their information from a file called "pigeon.txt". The first line in the file will be the number, followed by the information about the pigeons (each line corresponds to one pigeon). Go through the calculations as above, and then write the information of the surviving flock to a new file called "remainingPigeons.txt".