

CSc 210: Software Development
Section 3: Input in Java Programs
September 18th, 2017

In class, we have been discussing Java and we have looked at some commonly used objects and their methods. In this section, we will practice using some of those objects..

Problem 1: Using a Scanner object to read standard input

For this problem, you should write a program that does several things:

1. Instantiates a Scanner object.
2. Reads in three individual strings (not the entire line) from standard input.
3. Prints out these strings in a numbered list.
4. Prints out all strings concatenated together.
5. Prints out the first character of each

For example, we have a run of the program below:

```
% java Program
Testing hello world // My standard input
1. Testing
2. hello
3. world
Testinghelloworld
T h w
```

Once written, you should compile and run your program from the command line. Notice how you can give it varying inputs during each execution.

Problem 2: Using a Scanner object to read from a file

For this problem, we will write a program that reads input from a file called "input.txt" and performs simple operations. Your section leader can tell you exactly how to do this, but you will need to use a **File** object in combination with a Scanner. The files you will read in also could vary in length, so ask your section leader how to use a **while loop** to read an indefinite amount of input.

Your program will do two simple operations. It will count the number of individual characters found within words and the total words within the file. When done, it should print the results out.

Example:

```
% cat input.txt  
This is  
A test  
File  
% java Program  
There were 15 characters and 5 words in the file
```