

Input: Using the Scanner class

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Importing Classes

- We will be using the scanner class to allow someone to interact with a program
- By default, all available classes & methods (API) of Java do not get compiled into your program. If so, programs would be overloaded with unnecessary data
- You will often find yourself **importing** various classes to use in your programs.
- We will import the scanner class so we can use it in our code to get input from the user

Example

```
import java.util.Scanner;  
class EchoNumber {  
    public static void main(String args[]) {  
        Scanner myScanner = new  
Scanner(System.in);  
        System.out.println(myScanner.nextLine());  
}  
}
```

Importing Scanner

```
import java.util.Scanner;
```

- This line tells the compiler to include Scanner in the .class file
- Without this line we would not be able to use a scanner
- Notice that this is NOT inside of your class

Creating a Scanner

Scanner myScanner = new Scanner(System.in);

- At this point it is not necessary to understand the details of this statement.
- Basically, we create a **scanner** and call it *myScanner* (you can name it whatever you please)
- *myScanner* can then be used throughout the program to get input from the keyboard



Using a scanner

System.out.println(myScanner.nextLine());

- If someone types on the keyboard and hits enter *myScanner.nextLine()* gets that sentence
- The line of code above takes that sentence and then outputs it to the screen

Scanner usage

- Your scanner can collect various types of information from the user

<i>To Read This ...</i>	<i>... Make This Method Call</i>
A number with no decimal point in it	<code>nextInt()</code>
A number with a decimal point in it	<code>nextDouble()</code>
A word (ending in a blank space, for example)	<code>next()</code>
A line (or what remains of a line after you've already read some data from the line)	<code>nextLine()</code>
A single character (such as a letter, a digit, or a punctuation character)	<code>findInLine(".").charAt(0)</code>



Exercise

- Create a new version of the area program you made previously
- This new program should ask the user for a length and a width
- It should then output the area
- The program should be well formatted, user friendly, follow proper Java naming conventions, and be fully commented



Questions

- Next steps – Using it all together