Java Input

Lab 0C

imports

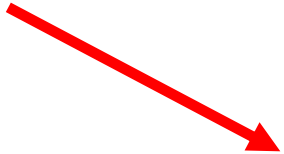
Scanner Imports

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

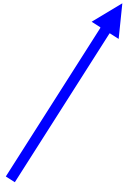
Try to be as specific as possible when using an import.

Scanner Creation

reference variable



```
Scanner keyboard =
                   new Scanner(System.in);
```



object instantiation

Scanner Methods

Scanner

frequently used methods

Name	Use
nextInt()	returns the next int value
nextDouble()	returns the next double value
nextFloat()	returns the next float value
nextLong()	returns the next long value
nextByte()	returns the next byte value
nextShort()	returns the next short value
next()	returns the next one word String
nextLine()	returns the next multi word String

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

Reading in Integers

```
Scanner keyboard =
                new Scanner(System.in);

out.print("Enter an integer :: ");
int num = keyboard.nextInt();
```

Reading in Integers

```
out.print("Enter an integer :: ");
int num = keyboard.nextInt();
out.println(num);
```

INPUT

```
931
```

OUTPUT

```
Enter an integer :: 931
931
```

Reading in Integers

reference variable

```
int num = keyboard.nextInt();
```

method call

Reading in data

```
out.print("Enter an integer :: ");
```

Prompts are used to tell the user what you want.

Open scannerints.java

Reading in Doubles

```
Scanner keyboard =
                new Scanner(System.in);

out.print("Enter a double :: ");
double num = keyboard.nextDouble();
```

Reading in Doubles

```
out.print("Enter a double :: ");
double num = keyboard.nextDouble();
out.println(num);
```

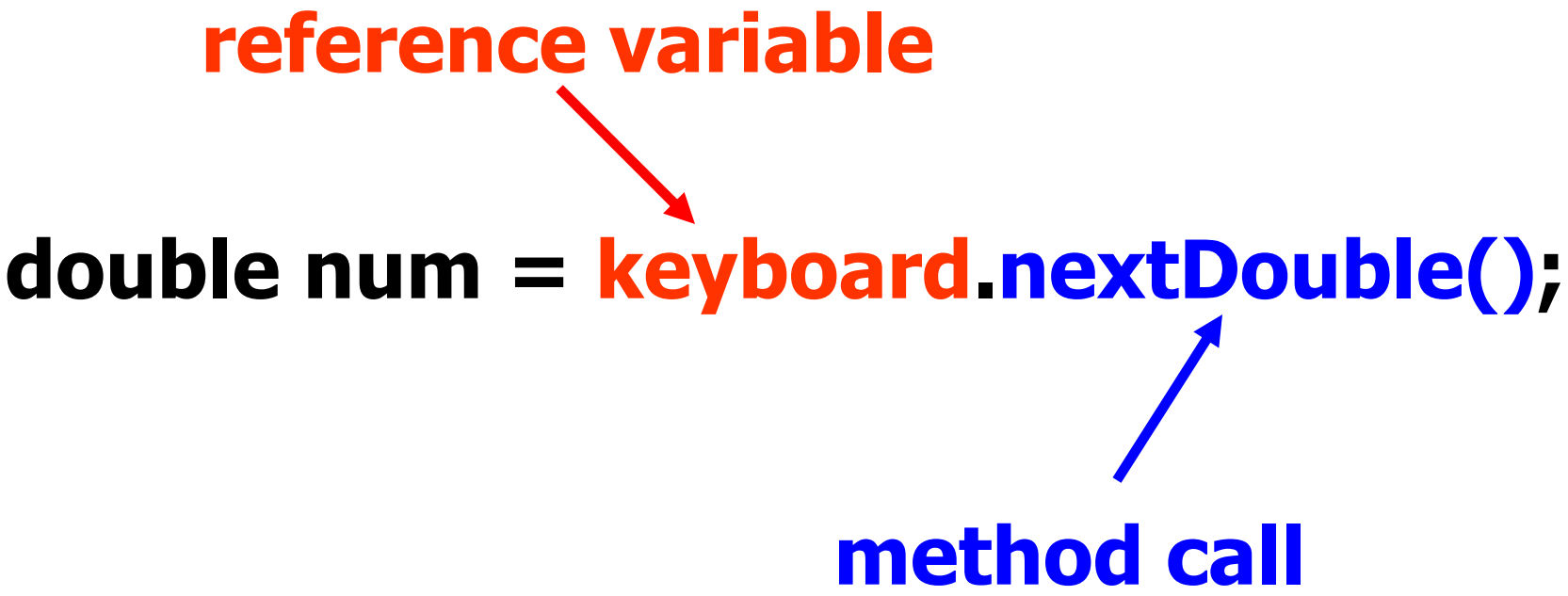
INPUT

34.33

OUTPUT

Enter a double :: 34.33
34.33

Reading in Doubles



Open scannerreals.java

Reading in Strings

```
Scanner keyboard =
                new Scanner(System.in);

out.print("Enter a string :: ");
String word = keyboard.next();
```

Reading in Strings

```
out.print("Enter a string :: ");
String word = keyboard.next();
out.println(word);
```

INPUT

I love java.

OUTPUT

```
Enter a string :: I love java.
I
```

Reading in Lines

```
Scanner keyboard =
                new Scanner(System.in);

out.print("Enter a sentence :: ");
String sentence = keyboard.nextLine();
```

Reading in Lines

```
out.print("Enter a line :: ");
String line = keyboard.nextLine();
out.println(line);
```

INPUT

I love java.

OUTPUT

```
Enter a line :: I love java.
I love java.
```

Open scannerstrings.java

nextLine() issues

```
out.print("Enter an integer :: ");
int num = keyboard.nextInt();
out.print("Enter a sentence :: ");
String sentence = keyboard.nextLine();
out.println(num + " "+sentence);
```

OUTPUT

```
Enter an integer :: 34
Enter a sentence :: 34
```

INPUT

```
34
picks up \n
```

nextLine() picks up whitespace.

nextLine() issues

```
out.print("Enter an integer :: ");
int num = keyboard.nextInt();
keyboard.nextLine();        //pick up whitespace
out.print("Enter a sentence :: ");
String sentence = keyboard.nextLine();
out.println(num + " "+sentence);
```

OUTPUT

```
Enter an integer :: 34
Enter a sentence :: picks up \n
34 picks up \n
```

INPUT

```
34
picks up \n
```

nextLine() picks up whitespace.

Open nextlineissues.java

Multiple Inputs

INPUT

1 2 3 4 5

```
Scanner keyboard =
                new Scanner(System.in);

out.println(keyboard.nextInt());
out.println(keyboard.nextInt());
out.println(keyboard.nextInt());
```

OUTPUT

1
2
3

Open multiread.java

Old School Input

```
BufferedReader keyboard =
   new BufferedReader(
      new  InputStreamReader( System.in ) );

System.out.print("Enter a word :: ");
String s = keyboard.readLine();

System.out.println(s + '\n' );
```

Old School Input

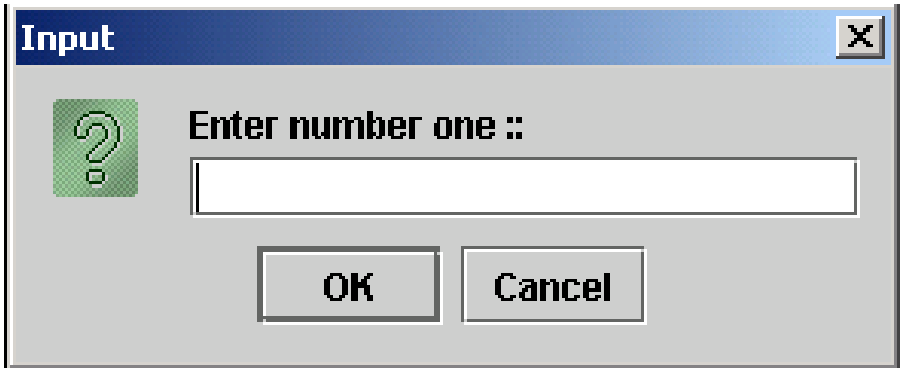
readLine() reads in all data as text / string data.
The text you read in must be converted over to the appropriate type before it can be stored.

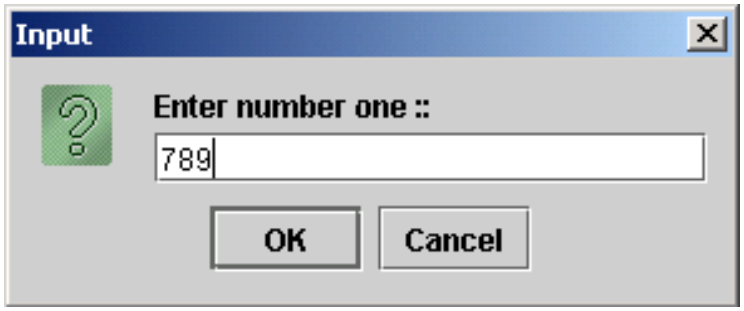
```
System.out.print("Enter an integer :: ");
one = Integer.parseInt(keyboard.readLine());
```

```
System.out.print("Enter a double :: ");
two  = Double.parseDouble(keyboard.readLine());
```

Open oldschoolone.java oldschooltwo.java

GUI






```
//GUI INPUT BOX
input= JOptionPane.showInputDialog("Enter an integer :: ");
one = Integer.parseInt(input);

//GUI OUTPUT BOX
JOptionPane.showMessageDialog(null, "Integer value :: " + one);
```

Open guihelp.java

Start work on Lab 0c