Input via Scanner & JOptionPane

- •Scanner- a Java class that provides methods for obtaining data from System.in (& for other things too)
- •defined in the Java library named java.util and so an import statement is required

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

- •JOptionPane a Java class that provides methods for interacting with user for input and output
- •defined in the Java library named javax.swing and so an import statement is required

```
import javax.swing.JOptionPane;
```

Import statements must be at very start of code

Input Using the Scanner Class

- •System a pre-defined Java class that has an object named in.
- •The standard input stream is **System.in**.
- •We can define a scanner object as:

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

- •The keyboard object above is a Scanner object to be used to get user input from the keyboard
- •The Scanner class is defined in the Java library named java.util
- → need an import statement for this

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

Input Using the Scanner Class

Useful Scanner methods	
hasNext()	returns true if the scanner has more tokens
next()	returns the next_token
nextLine()	returns the next line
nextInt()	returns the next int in the input stream
nextDouble()	returns the next double in the input stream
nextBoolean()	returns the next boolean in the input stream

data types?

Sample program – convert Celsius to Fahrenheit

Demo in class

Get a value in Celsius from user.... Use Scanner Perform calculation Report result to user.... Use System.out.println

JOptionPane

We can use this class to manage input and output ... programs need an import statement

JOptionPane

We can use this class to manage input and output ... programs need an import statement

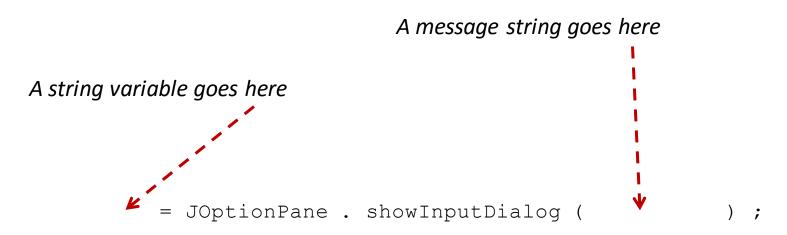
To display information to the user we just use:

The user sees a pop-up window and must click OK for the program to continue showMessageDialog does not complete until the click.

JOptionPane

To get information from the user we just use

JOptionPane.showInputDialog(...)



User sees a pop-up window displaying the message and with a box where text is entered by the user.

User then clicks OK for the program to continue and then a value is assigned to the variable on the left of the equals sign.

Input will be a text string

.... Later we learn how to convert these to numeric

Sample program – get text from user & report length

Demo in class

Get text from user.... Use JOptionPane Determine length Report result to user.... Use JOptionPane