WORKSHEET 01C – Due week 1 day 2

Remember to check your answers afterwards (when applicable)

1	**Review C. 1:** • Read your notes taken in class • Read C. 1.5-1.6 in textbook • Read the slides • Read Chapter Summary in textbook Update your notes if necessary .
2	**Hands-on** – follow the steps in the **HANDS-ON** section at the end of this document. • do work • answer questions on paper Write down answers. Check solutions, noting mistakes to learn from (if any). Hand in your work. .
3	**Written work:** • Review Questions R: 1.1-1.5, 1.7-1.9, 1.11 *Hint/reminder:* • If the question is about Java (or any programming language), you can find the answer **by yourself** by writing the code in your IDE and run it. In each chapter or BlueJ project, have a program called **Verifier** to try the code. Write down answers. Check solutions, noting mistakes to learn from (if any). Hand in your work to be graded. .

4	**Programs**:
	• Practice Exercises:
	    o E 1.3
	    o E 1.6
	    o E 1.8 – Must reproduce the exact image, including using double quotes (i.e., not single quotes) for the part of the hair next to the forehead
	    o E 1.21
	       For E 1.21, rather than using the phrases suggested by the book, find two phrases that contain characters beyond the keyboard, i.e., phrases with diacritical marks requiring you to use the Unicode Table. For example, "Hasta mañana" in Spanish, or "Ich bin müde" in German. Also include your "subtitles" in Engligh for these two phrases.
	
	Submit online before due date/time
	Demo in class on due date – reminder: have the code with you
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5	**Self-exploration:** • Did you have a good idea as the result of learning & practicing? If so, did you write it down in your "Good Idea" section? Start collecting ideas for your end-of-course project. • Did you encounter a problem & learn from it? If so, did you write it down in your "Lessons Learned" section? • Did you program something different/beyond your assignments (whether from your textbook or elsewhere or your idea)? If so, remember to share. Share in class, and/or in the online Discussion .

HANDS-ON

> **Objectives** – **ways to communicate between user and computer**:
> - Study & explore `PersWelcome` program, for a two-way conversation, through the console window
> - Study & explore `E15DialogViewer` program, to display "hello" in a dialog box
> - Study & explore `E16DialogViewer` program, for a two-way conversation, with input from a dialog window and output to the console window

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1	**Two-way conversation: Ask for the user's name and say "hello" in the console window:**		a) Scanner kboard = new
			    Scanner(System.in);
			b) String firstName = kboard.nextLine();
			c) kboard.close();

Two-way conversation: Ask for the user's name and say "hello" in the console window:
- Download PersWelcome from your teacher
- In BlueJ, "add class from file"
- Compile & run it
- Study the code

Questions:
Outputting to the console window was learned in `HelloWorld`. Now we learn about inputting.
a) What is the statement to set up for getting input from the user? (Just guess)
b) What is the statement to get the first name from the user? (Just guess)
c) What is the statement when done? (Just guess)
d) Play around and change the "conversation".

NOTE:
- This is sample code for getting text input from the user through the console window.
- Did you notice `import java.util.Scanner;` toward the beginning of the file? You must have this statement when getting input from the console window.

```
a) Scanner kboard = new
      Scanner(System.in);
b) String firstName = kboard.nextLine();
c) kboard.close();
```

2	**Say "hello" in a dialog box:** • Download E15DialogViewer from your teacher • In BlueJ, "add class from file" • Compile & run it • Study the code **Questions**: • What are the 2 differences in the **source code** between HelloPrinter and this E15DialogViewer?		The 2 method calls are different: In HelloPrinter: System.out.println("Hello,World!"); *Note*: 1 parameter here vs. In E15DialogViewer: JOptionPane.showMessageDialog(null, "Hello, Class!"); *Note*: 2 parameters here Also, E15DialogViewer has the import statement, which provides the work for the dialog box (from the Java Library).
3	**Two-way conversation: Ask for the user's name in a dialog box, and say "hello" in the console window:** • Download E16DialogViewer from your teacher • In BlueJ, "add class from file" • Compile & run it • Study the code **Questions**: a) What are the 2 differences in the source code between E15DialogViewer and this E16DialogViewer? b) The 2 **dialog boxes** are the same except for what? NOTE: In E16DialogViewer, JOptionPane.showInputDialog returns a value (i.e., output), which is stored in a **variable** called name of type String c) Based on what you learned in E15DialogViewer, replace the code so that you say "hello" in another dialog box (instead of in the console window). Compile & run. Then show to your neighboring classmate, who will verify the result. *Hint*: Use the concatenation operator and pass it to the method call.		a) Two differences: • E15DialogViewer calls showMessageDialog; E16DialogViewer calls showInputDialog (which returns an output, i.e., the name the user typed). • There are additional print statements to show the greetings in the console window. b) The first dialog box has "i" at the top-left corner (for information); the second, "?" (for question).
	<mark>Correct your answers with a pen. Hand in your paper to be graded.</mark>		

THE END