

Computer Science I – Prepa Tec Campus Eugenio Garza Lagüera
Activity 6: Hello, World!

Using the instruction `System.out.println(<argument>)`, we specify that we want to output some text to the console and jump to the next line. Inside the parenthesis, we include an argument, which can be a variable, a String encased by quotes ("), or a combination of both.

Look at the following example:

| Code | Console output |
|--|----------------------------------|
| <pre>System.out.println("Today"); System.out.println("is"); System.out.println("a"); System.out.println("happy"); System.out.println("day");</pre> | Today is a happy day |

There is a second variant of the instruction, which is `System.out.print(<argument>)`. Both look similar but notice that one uses `println` and the other uses `print`. This instruction is also used to output a text to the console but will leave the cursor right next to the outputted text, without jumping to a new line.

Look at the two following examples. Both blocks of code are equivalent and print the same output in the console.

| Code | Console output |
|---|-----------------|
| <pre>System.out.println("Today is Monday");</pre> | Today is Monday |
| <pre>System.out.print("Today "); System.out.print("is "); System.out.print("Monday");</pre> | Today is Monday |

There are some special characters that require a special representation to be printed to the console.

| Character | Code |
|-------------------------------|---|
| Single quote | \' |
| Double quotes | \" |
| Inverted slash | \\ |
| Tab | \t |
| Backspace | \b |
| Carriage return | \r |
| Form feed | \f |
| Newline (jump to next line) | \n |
| Any special Unicode character | \uXXXX replacing XXXX with the Unicode code |

For example, the following code would print the following:

| Code | Console output |
|---|-----------------------|
| <pre>System.out.println("1\n2\n3\n4\n5");</pre> | 1 2 3 4 5 |

Complete the following activities. Once you are done, submit the Java source code to Canvas (.java).

Problem 1: Using Eclipse, create a new Java project. Inside it, create a Java class and name it using your student id: `A0XXXXXX_P1.java`.

Design a program that prints an ASCII art of your choosing to the computer console (be creative!). The ASCII Art should include your student ID as part of the drawing.

For example:

A01135459

```
.aMMMMMMMMn. ,aMMMMn.
.aMcccccccc*YMMn. `Mb
aMcccccccccccccc*Mn MP
.AMMMMn. MM `*YMMY*ccaM*
dM* *YMMb YP `cMY
YM. .dMMP aMn. .cMP
*YMMn. aMMMMMMMMMMMY'
.'YMMb. ccMP
.dMcccccc*Mc...cMb.cMP'
.dMMMMb;ccc*Mbccc,IMMMMMMMn.
dY*' '*M;ccccMM..dMMM..MP*cc*Mb
YM. ,Mbcccccccccccccccc;MP
*Mbn;adMMMMMMMMMMMMMMMMIcccc;M*
dPccccIMMMMMMMMMMMMMMMMa;c;MP
Yb;cc;dMMMMMMMMMMMP*' *YMMMP*
*YMMMPYMMMMMMMP*'
```

Problem 2. Create a new class and call it `A0XXXXXX_P2.java`. The program should print the following text on the console:

The user (A0XXXXXX) has purchased the following:

| | |
|--------------------|---------|
| Bottle of water | \$8.50 |
| Chetos Flamin' Hot | ¥70.62 |
| \Trident/ gums | \$17.20 |

Make sure to:

- Replace “A0XXXXXX” with your student ID.
- Verify that all special characters are printed.
- The two columns must be properly aligned. You can use tabs `\t`. For this.

If you need to print any special character, you can find the Unicode codes on the following site: (<https://www.rapidtables.com/code/text/unicode-characters.html>).