

Homework 1 : Hello World!

(Deadline as per Canvas)

HW deadline as per Canvas.

This homework deals with the following topics:

- Setting up the Java programming environment and Eclipse
- An introduction to Java programming, syntax, and style
- Math, data types, strings, and printing

Before you get started on this first Java assignment, follow the “Installing_Configuring Java _ Eclipse.pdf” document for how to install Java and Eclipse, and how to create your first project and class. **If at any point during the installation/set-up process you are having difficulty, please post on Ed Discussion.** For something like this, we strongly encourage you to post publicly. Often times, an install problem that you are having is a problem another student might be having as well.

The Assignment

Now that you have created your first project and class, we want you to get a feel for this new language. In order to do that, we will just have you program in the *main* method of your program.

There are a series of questions we want you to answer by writing code. All of the code you write should be in the *main* method of a “HelloWorld.java” file.

1. Print "Hello World!"
2. Print the result of 1.22 multiplied by 49021
3. Print the result of 3 divided by 0.3
4. Print the result of 214 divided by 6, discarding the remainder
5. Print the result of 214 divided by 6, without discarding the remainder
6. Print the remainder of 214 divided by 6
7. Print the value of 3 raised to the 11th power
8. Cast the value of 6 divided by 4 to a String and print it
9. Concatenate and print the Strings 'I', 'Love', and 'Java'. Add a single empty space between the Strings.

10. Fix the following print statements so the output appears as: $4 \% 2 = 0$
`System.out.println("4 % 2 =");`
`System.out.print(4 % 2);`
11. Print the following sentences, (including the double quotes):
Albert Einstein's best quote is "I have no special talent. I am only passionately curious."
12. Print the following sentences, (including the backslashes and double quotes):
In Java Strings, the backslash (\) is a special character, also called the "escape" character.
Prefixing a special character (e.g. single quote) with a backslash (\) turns it into an ordinary character.
13. Print "Goodbye!"

Separate the printed output from each question above with a blank line, a "-----", and another blank line. For example, the output from the first 2 questions might look something like this:

Hello World!

59805.619999999995

Write comments using `//` for any non-trivial lines of code. Please include comments in your code to make it clear where the code for each question has been written. Here are example comments for 2 of the questions.

```
1 public class HelloWorld {
2
3     public static void main(String[] args) {
4
5         //Print "Hello World!"
6         //TODO Your code goes here
7
8         System.out.println(); //blank line
9         System.out.println("-----");
10        System.out.println(); //blank line
11
12        //Print the result of 1.22 multiplied by 49021
13        //TODO Your code goes here
14
15        System.out.println(); //blank line
16        System.out.println("-----");
17        System.out.println(); //blank line
18    }
19 }
20
```

Note, the TODOs should be replaced by your own code!

What to Submit

Please submit your “HelloWorld.java” file on Canvas. Do not submit anything but this one file.

When you click Upload on Canvas, you will have to locate your java file in the HW1_CIT591 → hw1 → src folder, in your Eclipse workspace. This is slightly different depending on your operating system, but here is what my full path looks like for reference:

/Users/brandonkrakowsky/eclipse-workspace/HW1_CIT591/src/hw1/HelloWorld.java

Evaluation

1. Did you set up the file correctly? Does it compile and is everything named correctly? (2 pts)
2. Does your code function? Does it do what the specifications require? (13 pts)
3. Did you include the required comments that indicate each of the thirteen questions? (1 pt)
4. Did you write good comments (including javadoc comments for the HelloWorld class) throughout your code? (2 pts)
5. Did you follow good style conventions? This includes camelCase for variables and proper indentation. (2 pts)
6. Did you submit the correct file “HelloWorld.java” and nothing else? (1 pt)