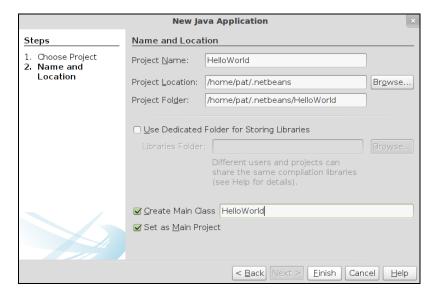
Hello World

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Purpose: Create a first program in Java and a first project in NetBeans.

- I. Creating a new NetBeans project. Steps to create the project:
 - A. Run Netbeans.
 - B. Click on the *File* menu, then select *New Project*.
 - C. A new window will pop up.
 On the first page select
 "Java" from categories,
 and "Java Application"
 from projects. Then click
 next.
 - D. Set Project Name to HelloWorld. Select a Project Location and Project Folder. These choices determine a directory where your work will be saved.



- E. Make sure *Create Main Class* is checked. Enter "HelloWorld" into the adjacent textbox. (This differs from the default.)
- F. The window should look similar to the one on this page. Click finish.

II. Editing the HelloWorld class.

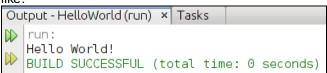
- A. A window should be opened labeled HelloWorld.java.
- B. Enter the following code in the main function:

```
System.out.println("Hello World!");
```

Your screen should look as shown at right.

- C. Save the file using the menu: "File > Save".
- D. You should have noticed as you typed the period after system, NetBeans "helps" you. If you didn't notice this, play around with retyping it.
- III. **Running the program.** The following two methods both run the program:
 - A. To run the program from within NetBeans do the following. Select "Run > Run Main Project" from the menu.

A sub-window should pop up and display the output of your program. It should look something



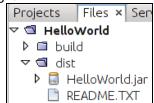
- B. To run the program from the command line (on a terminal) perform the following steps:
 - 1. Select "Run > Clean and Build Main Project" from the main menu bar.
 - 2. This has the effect of creating a ".jar" file. You can see the file by selecting the "Files" tab,



then expanding down to the "HelloWorld/dist/" folder. See below, right.

3. In a terminal (or command prompt) outside of NetBeans, change directories to "HelloWorld/dist/" part of your project. You can run the program with the following command:

```
java -jar HelloWorld.jar
```



IV. **Discussion of Program.** Source code with comments stripped out:

```
public class HelloWorld {
    public static void main(String[] args) {
        System.out.println("Hello World!");
    }
}
```

Comments:

- There is one method (or function) in this program, named **main**. The method only has one statement, which prints our message.
- Statements end with semicolons.
- Java programs begin by executing a main method.
- The method **main** is part of the class **Helloworld**. A *class* is a collection of functions and java objects, which haven't been introduced yet.
- System is another class. It contains an object called out, which controls the output of the program. The object out is a member of a class with a method called println.

Links:

Here are some links to some other "Hello World" tutorials:

- The NetBeans IDE Java Quick Start Tutorial
- Oracle has several hello world tutorials, including <u>one using NetBeans</u>, one for <u>using windows</u> without NetBeans, and one for using the linux command line.