HW5: UNIX Assignment (Courtesy of Professor D. Sokol)

This assignment is composed of five steps:
1. Logging in to your UNIX account
2. Creating a text document called "helloworld.java"
3. Compiling and running your first Java program in UNIX
4. Creating your own website, and posting the source code for the homework assignment on your homepage.
5. Creating and running the project of HW4 as a project on UNIX

The first program that many programmers write upon meeting a new system is called a "Hello World" program. This is a small program that prints out a message, usually "Hello World." The purpose is to help you get started on the system. You must edit a small program, compile it and execute it. Your first UNIX assignment is to write a "Hello World" program on a UNIX machine. This assignment will be submitted by posting it on your homepage, which you will create in this assignment as well.

STEP 1: Logging in to your UNIX account the first time

Go to the WEB Building (also called the Field Building), and ask for your UNIX account. They will give you:
Your *username* (account id) which is probably your initials followed by a part of your last name.
Your *temporary password*, which you will change.

You will go to a SUN machine (not a PC). The screen may be dark. Press the RETURN key and it lights up. At the login prompt, type in your user name:

login: **username**

At the password prompt, type in your temporary password (*UNIX is case sensitive*):
password: **temporary_password**

When you login for this first time, you will be asked to change your password. Follow the rules for a valid password. You will then be logged off automatically and told to come back after it has updated the password. This may take up to an hour.

Return and get a machine to login the second time. Give your username and the password you selected (which you can change at any time by using the **passwd** command). You are now logged in to your account. Always remember to **logout** before leaving your machine!

STEP 2: Creating a helloworld.java program

You all know how to create a Java program that prints "Hello World" to the screen. The challenge in this part is to create your first text document in UNIX. The text editor that you use is your choice (nedit, pico, Emacs, vi);

Create the document and save it as helloworld.java

STEP 3: Compiling and running your first Java program in UNIX

The command to compile and create an executable from Java source code is the following:

```
javac helloworld.java
```

If there are errors, they will be displayed on the screen. Fix them in the text editor and compile again.

The executable for your program is (by default) placed into a file called helloworld.class
To run your program, simply type

```
java helloworld
```

on the command line. The output should display on your screen.

STEP 4. Creating your own Website

Log into your Unix account.
Change the permissions for your home directory to allow others read permission (DO NOT type the comments, they are for you):

```
pwd                              // tells you the exact name of your home dir, e.g.
```
/users3/ziegler
```
chmod 711 /users3/ziegler        // allows others to read certain files in your home directory
```

Now, create a directory called **public_html** under your home directory, as follows.

```
mkdir public_html                // creates a directory called public_html
chmod 755 public_html            // changes permissions for public_html directory
cd public_html                   // changes the current directory to public_html
```

Using any text editor create a file called **index.html** which will be your homepage. If you do not know HTML, you can use the following text, augmented, of course with your own name. You should read a bit about HTML; you may use some useful links provided on my Unix Resources page.

```
<HTML>
<HEAD>
<TITLE>Prof. Ziegler's Homepage</TITLE>
</HEAD>
<BODY>
<H2>Welcome to Prof. Ziegler's Homepage</H2>

Here you will find links to all of my CISC 3115 assignments.
<br><br>

<a href="helloworld.java">Homework 1</a>

</BODY>
</HTML>
```

You can also view this file by going to: http://acc6.its.brooklyn.cuny.edu/~ziegler/index.html
Choose View -> Source on the Web browser's menu. (Cntrl ^U on some browsers)

Now, change permissions of the index.html file to allow all read permission, by typing the following at the command prompt in the public_html directory:

```
chmod a+r index.html              // allow read access to all
```

You should now be able to view your homepage in any web browser. The URL for your homepage is the following:

http://acc6.its.brooklyn.cuny.edu/~ziegler
protocol host   domain name   user name

To complete your assignment, you must make sure that you have copied helloworld.cpp into your public_html directory, and you have changed the permissions for the file.

In your home directory, type:

```
cp helloworld.java public_html//copies file from your home directory to public_html directory
cd public_html                      //change directory to public_html
chmod a+r helloworld.java      // allow read access to all
ls –la                              // list files, showing permissions
```

You may decide to put all files for each homework assignment into its own directory. Then, your link would be as follows:

```
<a href="hw1/helloworld.java">Homework 1</a>
```

However, be sure to change the permission on the directory hw1 as you did for the public_html directory above.

Before submitting, be sure to test your files by typing in your url in the address bar of a web browser.

STEP 5. Creating and running a project on UNIX:

Create a directory called **HW5** into which you will copy all the files you created for HW4. **Compile, run and test your program on the UNIX system.** Have the output be created into the HW5 directory Finally, **add links to your web page so as to make all the source (*.java), executable (*.class), input and output (*.txt) files visible.**

STEP 6. Homework Submission:

Send me an e-mail message containing a link to your web page.