Introduction to Perl

Perl is an abbreviation for Practical Extraction and Report Language. It's original purpose was to monitor large software projects and generate reports. It was initially developed on Unix.  
  
Perl is one of two languages that are most commonly used in a cgi script to process forms on the Web. This is because most of the information that users send to servers is text, such as usernames, passwords, and email addresses.  
  
Perl is the language that you will use to process your form in Homework 8a. I will be explaining to you only the necessary Perl statements to complete this homework assignment. The explanation of each relevant Perl statement can be found in the comment statements (those that begin with #) of the sample Perl script that is illustrated on the next page, and in the sample Perl script associated with the sample web page for Homework 8a. Mainly, what you will do is to copy my [Perl sample script](http://fog.ccsf.org/~srubin/cgi-bin/form1.txt), and then modify it to accommodate your own specifications in processing your form in Homework 8a. When you copy my script, be sure to save it as form1.pl.The modifications on your perl script involve:  
  
1. changing the variables within each occurrence of $in to match your variable names in your form.  
  
2. changing the information in the HTML portion to reflect the web page that your perl script will return to the browser.

You may wish to read the tutorials on Perl at the following URLs:  
  
<http://pageresource.com/cgirec/index2.htm>  
  
<http://www.perlaccess.com/tutorials/General/>  
  
<http://www.htmlgoodies.com/primers/perl/>

**Basics of using a Perl script on the hills server**

To get a Perl script to work with a form, you'll need to do the following:

* Create a subdirectory of your public\_html directory, called cgi-bin
* Put the script file in cgi-bin
* Give unix execute permission for the script file and the cgi-bin subdirectory
* Refer to it in the ACTION attribute of your Homework 8a web page as:  
  ACTION="form1.pl", where form1.pl is the actual name of the script file.

**Elements of Perl**

* Semi-colons and case-sensitivity. All statements in Perl must end in a semi-colon. This lets Perl know when to stop one idea and start the next one. Perl is case-sensitive - upper and lower case letters are treated differently.
* The First Line. The first line of all your Perl scripts should be:  
  #!/usr/local/bin/perl  
  This tells hills to execute the program that follows using Perl. If you are ever creating Perl scripts that will run on a different Unix machine (other than hills), you may need to change this first line, since it is machine dependent.
* Comments. Any line, except for the first line, that starts with a pound sign (#) is a comment. Comments are used to make your Perl scripts easier to understand.
* Variables. Variables in a Perl script start with a $. For example, $in{'choice'}, would refer to the contents of the value attribute that is associated with name="choice" in your HTML form page.
* Print Statements. Print statements are used to output information to an output device such as a screen.  
  Example 1:  
  print "<h2>Rubin's Form</h2>";  
  This statement would output the header, Rubin's Form.  
  Example 2:  
  print<<"\_END\_";  
  This line says to output the following information, until the statement \_END\_; is reached

**To get a more complete understanding of Perl, you should take CS 113A**