

.u.uab.CS306 – Introduction to Perl

Summer 2005

Final Project

Proposal Due: July 13th, 2005 (by mid-afternoon July 8th wins major brownie points)

Slides Due: August 8th, 2005

Presentation: August 10th, 2005

Code Due: August 10th, 2005

Final Project Assignment

Write a cool program in Perl.

Ok, it's a little more involved than that. You are to propose, develop and present a project implemented in Perl. The subject matter is of your own choosing. The project should incorporate several of the topics and techniques we have discussed in class. It should be complex enough that it would be reasonable to expect that it will take at least 10 hours to implement. It should include input, output, storage and computational aspects. Your project proposal will be reviewed and adjusted to the appropriate complexity before you are to proceed with the program development.

As always, your work should be solely your own. Particular emphasis will be placed upon this point during this project. You are responsible for four “deliverables” related to this final project. These are outlined below.

Project Proposal – Due July 13th, 2005*

*** [I will leave the country on July 9th. I will have very limited access to email from the 9th until the 18th. If I don't receive the proposal by mid-afternoon on the 8th, I cannot guarantee a response before the 18th, which may reduce the amount of time you have to work on this project.]**

This is a ½ to one page informal summary of the project which you propose to complete. It should include a paragraph or more of text describing the project, and a bulleted list of the technical components of the project. You will not be graded specifically on this proposal, but you cannot proceed with your project until your proposal has been approved. Email is an acceptable form of submission. I may alter the project to achieve the desired complexity.

Project Slides – Due August 3rd, 2005

You should submit a maximum of 6 slides (not counting title or introductory slides) in Powerpoint or OpenOffice format. These need to be submitted ahead of time so that the presentation can be prepared before class. The slides should very briefly present your ideas, the major Perl constructs and techniques that you used, and sample output.

Project Presentation – “Lightning Talks” - Delivered on August 10th, 2005

Each class member will have 4 minutes to quickly present their project. You will give a talk to accompany your slides. You may also perform a live demo with the slide presentation, but it all must fit within 4 minutes. The goal is to quickly communicate the main ideas of your projects, show any particularly spiffy code, and perhaps a live demo if there is time.

Project Code – Due August 10th, 2005

You will submit your completed code. Your code must:

- Be completely your own work
- Be thoroughly documented
- Be modular, exhibiting code reuse through the use of subroutines wherever possible
- Perform error handling to validate input, file operation success, etc...
- Utilize several of the Perl constructs we've learned about this semester. Examples include but are not limited to file/directory I/O, references, complex data structures, regular expressions, control structures, proper scoping of variables, subroutines

Example Projects

As this project is rather open-ended, you are limited only by your imagination and my requirement that the project be sufficiently complex to demonstrate that you have a good grasp of Perl across a wide range of the concepts we've discussed in class.

Below are some examples of projects which would be appropriate in scope.

Golf Score Tracker - This program tracks records your rounds of golf and generates various statistics about your performance and trends. The program allows the user to

enter details about each course (total length, par and length of each hole) and each round (which course, total score, score on each hole, time and date of round). The data is entered through a web interface. The program can then calculate your current handicap, your average performance on a particular course or type of hole (Par 5's, for example). The user can also retrieve reports of past performance.

Chat Room - This program allows multiple clients to connect to the same port on a server and communicate with each other in real time. The server acts as a broker between the clients, receiving a message from one and redistributing the message to the rest of the clients. The program also allows the user to message just one other user through a special command syntax. It allows the client to retrieve a list of other clients and whether they are currently away from the keyboard or inactive (based on time since last message sent).

Photo Gallery - This program can take as input a directory full of image files, and generate a web photo gallery, complete with thumbnails, mid-sized and full-sized pictures with optional captions. It can either generate a set of static pages for uploading to a remote server, or be run on the web server to dynamically serve the content (although the resizing of images has been completed offline).