

## CGI Programming with Perl

### Course Summary

#### Description

This course teaches students to set up a web site that provides dynamic content using Perl-based CGI scripts

#### Topics

- Perl refresher
- Using CGI.pm
- Calling CGI programs
- CGI Output
- Form Processing in Detail
- Working with JavaScript
- Saving State
- Working with Images
- Beyond CGI

#### Audience

This course is designed for web site developers who need the simple, free and flexible approach of CGI for creating dynamic content.

#### Prerequisites

Students should have a user-level knowledge of an operating system such as UNIX/Linux or Windows as well as a basic familiarity with Perl programming.

#### Duration

Two Days

## CGI Programming with Perl

### Course Outline

#### I. Perl Refresher

- A. Data types
- B. Using split( )
- C. References
- D. References to lists
- E. References to hashes
- F. Using object-oriented modules

#### II. Using CGI.pm

- A. Creating a CGI object
- B. Processing a form
- C. Non O-O CGI.pm

#### III. Calling CGI Programs

- A. Absolute and relative paths
- B. Calling from a URL
- C. Calling from a form
- D. The <FORM> tag
- E. The <INPUT> tag
- F. The SUBMIT and CLEAR buttons

#### IV. CGI Output

- A. Emitting headers
- B. Outputting raw HTML
- C. Using CGI.pm methods
- D. Non-HTML output
- E. Auto-redirects

#### V. Form Processing in Detail

- A. The TEXT input type
- B. The SUBMIT and IMAGE input types
- C. The RESET input type
- D. The CHECKBOX input type
- E. The RADIO input type
- F. The TEXTAREA input type
- G. The PASSWORD
- H. The <SELECT> tag
- I. Multiple selections
- J. Processing a form by hand

#### VI. Working with JavaScript

- A. Simple JavaScript
- B. Shared functions
- C. Generating JavaScript on-the-fly

#### VII. Saving State

- A. The HIDDEN input type
- B. About cookies
- C. Creating a cookie
- D. Using a cookie to save info
- E. Saving state with CGI.pm
- F. Redisplaying a form after invalid entry

#### VIII. Working with Images

- A. Displaying images
- B. Creating imagemaps
- C. Imagemap tools
- D. CGI to handle imagemaps
- E. HTML templates
- F. Why use templates?
- G. The template module
- H. Processing a template
- I. Basic template syntax
- J. Loops and conditionals
- K. Linking to a DBMS

#### IX. Appendix A: Beyond CGI

- A. Using JavaScript
- B. Alternatives to CGI
- C. PHP
- D. Servlets
- E. Cold Fusion
- F. ASP.NET

#### X. Lab Exercises:

- A. Chapter 1: Splitting into a hash
- B. Chapter 2: Processing a page
- C. Chapter 3: Call same script from URL and form
- D. Chapter 4: Outputting HTML with CGI.pm methods
- E. Chapter 5: Make a complex form with multiple selections
- F. Chapter 6: Filling out a form w/ error checking
- G. Chapter 7: Picture browser
- H. Chapter 8: PHP example
- I. Chapter 9: Same example as Chapter 8, but with TT rather than PHP