

Perl Programming

A 4-day Programme with hands-on tutorial exercises

Synopsis:

Since the beginning of this decade, PERL has slowly but surely gained a large group of users who have since abandoned their familiar home ground of shell programming on a UNIX platform. Today, the PERL conference with attendance of 1200 participants is testimony of its flexibility in getting the job done by exploiting the underlying language facilities and operating system services.

This 4-day course is a first course in PERL programming. As PERL is indeed a large language, this course starts participants with the basic concepts, framework and structures in PERL. Building on these, the course discusses the facilities available in the language for text manipulation: Regular Expressions, predefined operators/functions Input/Output, and File handling.

Other PERL facilities such as Modules, Packages and Objects may be introduced but the focus will depend on the participants' work requirements. To build up confidence in Perl programming, particularly for beginners, intensive hands-on exercises will form a major part of the course.

Who should attend?

This course is designed for participants with little or no knowledge of PERL but would like to learn how to produce useful programs in PERL.

Basic Course Outline:

An Overview of Perl

- What is Perl?
- Uses of Perl
- Perl Programming Environment
- Running Representative Perl programs

Program Structure

- Perl Lexical Entities
- Perl Brief Syntax
- Data Structures: Scalar, Array and Hashes
- Quotes: Single, Double and Grave

Statements

- Simple Statements and Expressions
- Statement Modifiers
- Blocks

Operators

- Truth Values
- Relational and Equality Operators
- Additive and Multiplicative Operators
- Assignment Operators
- String and List Operators
- File Operators

Regular Expressions

- What is Regular Expression?
- Pattern Matching
- Substitutions

- The Regular Operators
- Character Classes
- Repetition Counts
- Escapes and Literals
- Maximum and minimal matching

Control Flow

- Conditionals
- Iterations: For loops and While loops
- Block Expressions

Input, Output and Files

- File handles
- Standard File handles and defaults
- Opening and Closing Files
- Line Ranges
- Multi-line Records
- Files and Directories
- Pipes and Processes
- Formatted Reports

Subroutines

- Built-in Functions: chop, close, open, die, keys, pop, push, print, shift, unshift, etc.
- Defining and Using Subroutines

Modular Programming

- Module
- Package
- PERL Library

Course Leader:

Dr. Danny Poo graduated with a BSc (Hons), MSc and PhD in Computation from the University of Manchester Institute of Science and Technology (UMIST), England. He is currently an Associate Professor in the Department of Information Systems, National University of Singapore and teaches a course on Systems Analysis and Design at the undergraduate level. He presently serves as a member of the Steering Committee for the Asia-Pacific Software Engineering Conference. He is actively involved in Software Engineering research and in the teaching and application of object-oriented technology. Dr. Poo has been invited by companies on numerous occasions to conduct in-house training courses for their staff. He is also author of a book on Object-Oriented Programming/Java.