

Object-Oriented Perl

Course Outline

Perl Essentials Review

- Topics not reviewed (but essential to understand OOP in Perl)
- References
- Advanced data types
- Typeglobs
- Packages
- Lab Exercise

OO Primer

- Objects
- Methods
- Classes
- Additional OO Terminology
- Lab Exercise

OO in Perl Essentials

- The Basis of OOP in Perl
- Class creation
- Method / Object creation
- Calling methods
- Constructors
- Accessors
- Mutators
- Affordances
- Class data
- Class modules
- Using AUTOLOAD
- Destructors
- Lab Exercises

Using bless on arrays and scalars

- Why use other data types?

- Blessing arrays
- Pseudo-hashes
- Blessing scalars
- Lab Exercise

Using Bless on REs, subroutines and Typeglobs

- Blessing things other than variables
- Blessing regular expressions
- Blessing subroutines
- Blessing Typeglobs
- Lab Exercise

Inheritance

- Determining a method's location
- The @ISA array
- How the @ISA array works
- Inheritance in other languages
- Perl 'built-in' methods
- Handling DESTROY methods with inheritance
- The SUPER class
- Abstract methods
- Polymorphism

Automating Class Creation

- Using class::struct to create classes
- Using arrays instead of hashes
- Attribute types
- Other tools to create classes
- Lab Exercise

Ties

- What are ties?
- Making a Tied Scalar
- Making a tied array
- Making a tied hash

- Making a tied filehandle
- Ties and inheritance
- Lab exercise

Installing CPAN modules

- Introduction in the concept of overloading
- Using overload.pm
- How your overload subroutines will be called
- Magic autogeneration
- Fallback
- Lab exercise

Encapsulation

- Overview of encapsulation
- Private identifiers
- Using closures to enforce encapsulation
- Other methods of encapsulation
- Lab exercise