VERY ITERATORS. SO LAZY. AMAZE!

Maxim Vuets

@AmsterdamXpm

THIS SIDE UP
Pusheen.Tumblr

Pusheen.Tumblr

Everydaycute.com

Pusheen.com

kind of lazy
Pusheen.com

PEEPS
Pusheen.com

```
while (<$fh>) { ... }

while (readdir $dh) { ... }

while (my $row = $sth->fetchrow_arrayref) { ... }

while (my ($k, $v) = each %hash) { ... }

while (/^#(.*)\n/g) { ... }

my $n = rand();
```

Pusheen.Tumblr

```perl
my $meow = sub { say 'meow' };
$meow->();
```

```perl
sub make_utterer {
  my $sound = shift;
  return sub { say $sound };
}

my $purr = make_utterer('*purr~*');
$purr->();
```

Pusheen.Tumblr

```perl
sub make_utterer {
  my @sounds = qw<meow purr hiss yowl>;
  return sub { shift @sounds };
}

my $utter = make_utterer();
say while $_ = $utter->();
```

Pusheen.Tumblr

```perl
sub make_fibocat {
  my @last = (0, 0);
  return sub {
    my $next = ($last[0] + $last[1]) || 1;
    push @last, $next;
    shift @last;
    return 'meow ' x $next;
  };
}

my $fibocat = make_fibocat();
say $fibocat->() for 1..10;
```

lazy
Pusheen.com

Pusheen.Tumblr

```perl
open my $food_fh, '<', 'food.txt';
my @food = <$food_fh>;
close $food_fh;

my @menu;
for my $option (@food) {
  chomp $option;
  next if length($option) <= 8;
  $option = "super $option meow~";
  push @menu, $option;
}

open my $menu_fh, '>', 'menu.txt';
print $menu_fh "$_\n" for @menu;
close $menu_fh;
```

PROS

- easy
- quick
- concerns separated

CONS

- memory bound

Pusheen.Tumblr

```
open my $food_fh, '<', 'food.txt';
open my $menu_fh, '>', 'menu.txt';

while (my $option = <$food_fh>) {
  chomp $option;
  next if length($option) <= 8;
  $option = "super $option meow~";
  print $menu_fh "$option\n";
}

close $menu_fh;
close $food_fh;
```

PROS

- constant memory
- same performance

CONS

- concerns mixed up
- troublesome to maintain

Pusheen.Tumblr

```
my $it = reader('food.txt');

$it = imap  { "super $_[0] meow~" }
      igrep { length($_[0]) <= 8  }
      $it;

writer($it, 'menu.txt');
```

```
sub reader {
  my ($file) = @_;
  open my $fh, '<', $file;
  return sub {
    my $line = <$fh>;
    chomp $line;
    if (!defined $line) {
      close $fh;
      return undef;
    }
    return $line;
  };
}
```

```
sub igrep(&$) {
  my ($cb, $it) = @_;
  return sub {
    while (defined (my $val = $it->())) {
      return $val if $cb->($val);
    }
    return undef;
  };
}
```

```
sub imap(&$) {
  my ($cb, $it) = @_;
  return sub {
    my $val = $it->();
    return undef if !defined $val;
    return $cb->($val);
  };
}
```

```perl
sub writer {
  my ($it, $file) = @_;
  open my $fh, '>', $file;
  while (defined (my $val = $it->())) {
    print $fh "$val\n";
  }
  close $fh;
}
```

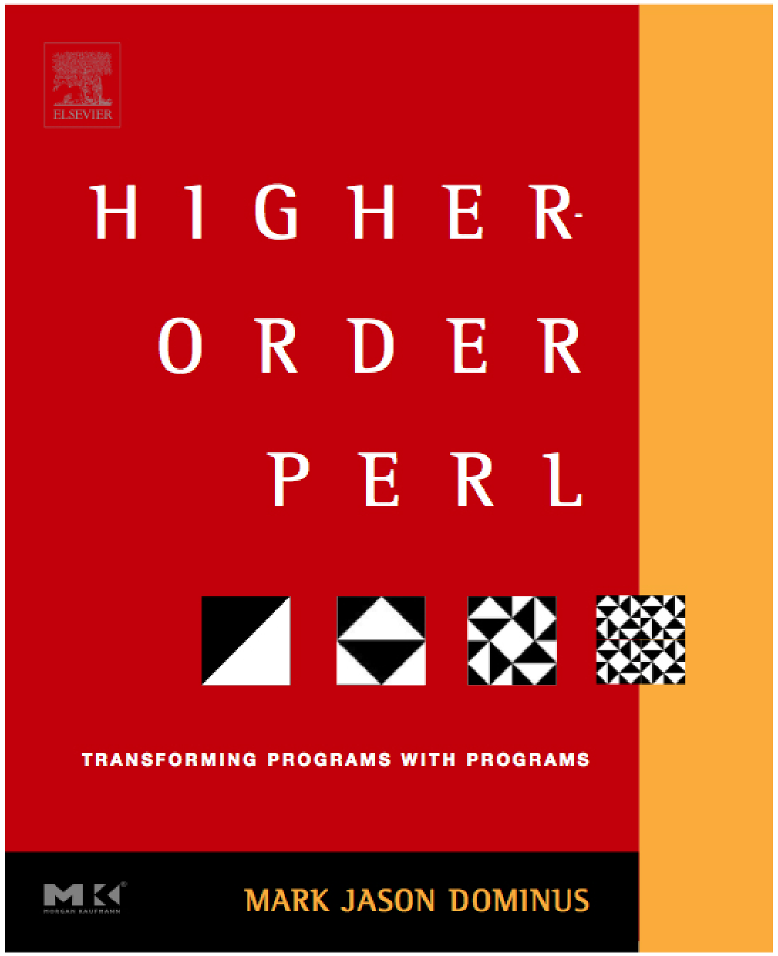
```
my $it = reader('food.txt');

$it = imap  { "super $_[0] meow~" }
      igrep { length($_[0]) <= 8  }
      $it;

writer($it, 'menu.txt');
```

PROS

- concerns separated
- constant memory
- flexible code
- lazy

so lazy
can't move
Pusheen.com

http://hop.perl.plover.com



maxim.vuets@gmail.com

@mvuets