# The *ongoing* future of Perl 5

**Perl** is a very popular programming language used in web development, software integration, data conversion, system administration, and many other areas. This talk will discuss Perl **capabilities**, **applications**, use in industry, and **job prospects** and **ways to excel**.

Presented by Southampton Perl Mongers

**Wednesday**
**29 October**
**1-2pm**
**Room A2.08**
**Anglesea building**

*Where is your language in the food chain?*

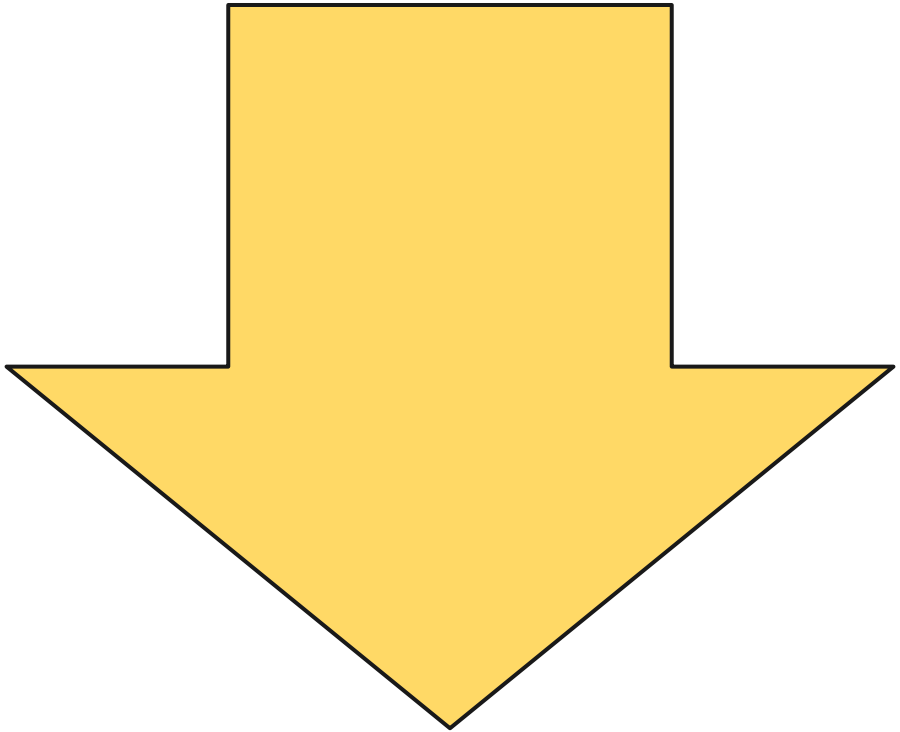
University of Portsmouth

# The *on-going* future of Perl5

Southampton Perl Mongers

Slides are available at http://goo.gl/5v8nXI

# About us

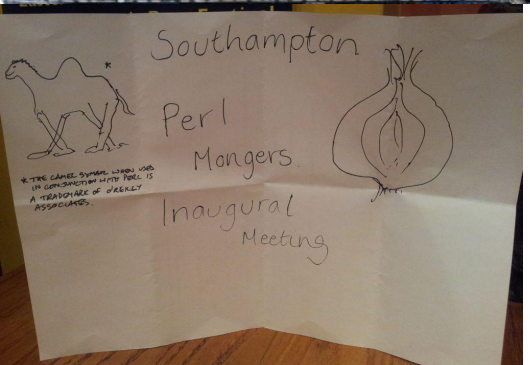


# About us

## Do *you* use Perl?

The Southampton Perl Mongers meet to discuss Perl on the first Wednesday of the month.

http://southampton.pm.org/



# Why we are here..

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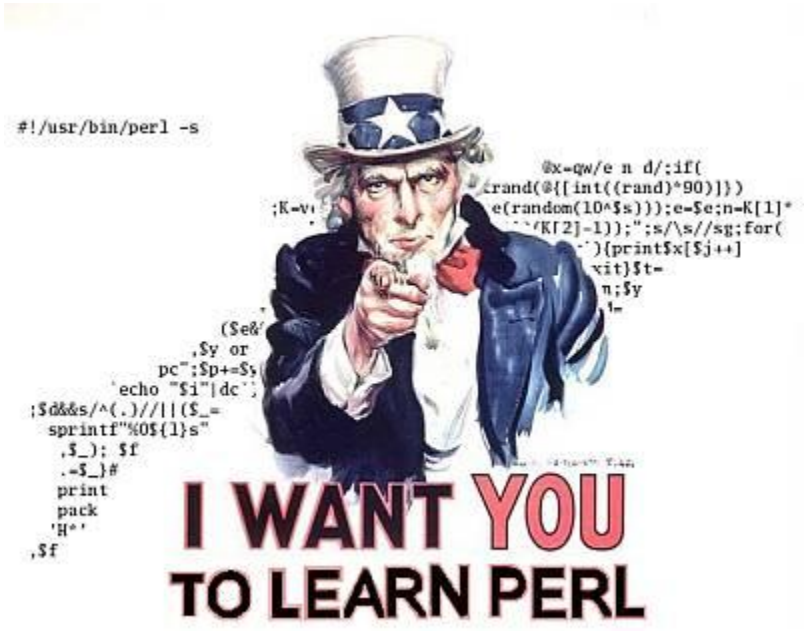
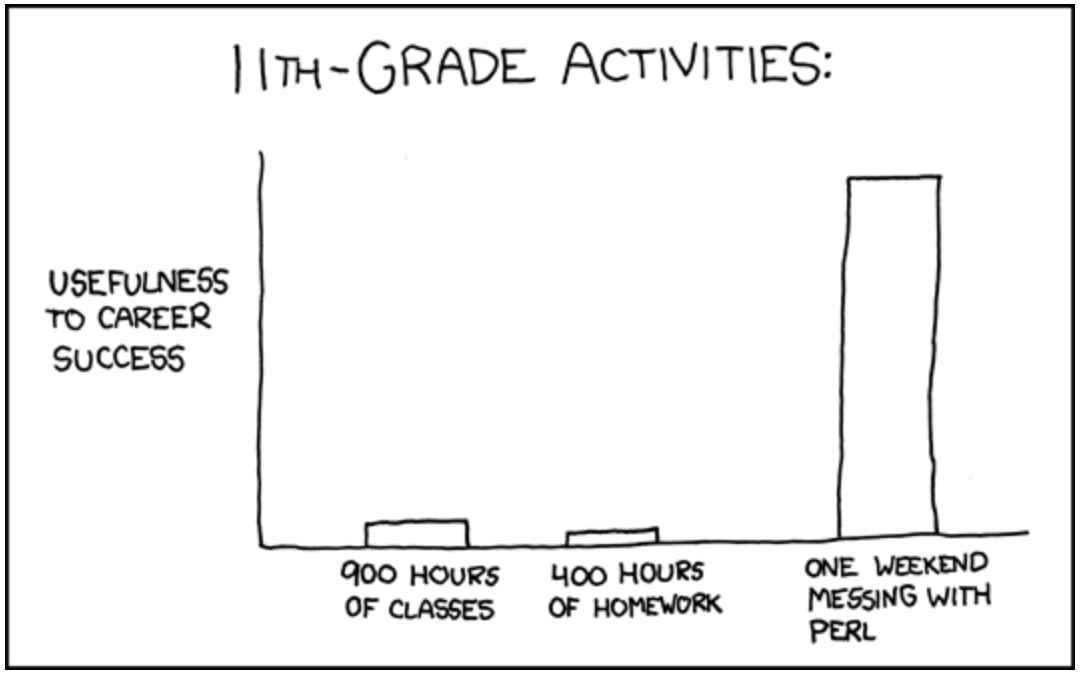





source: http://xkcd.com/519/

# Agenda

- Part 1: Perl jobs & trends
- Part 2: Perl awesomeness

# Who is using Perl?

# What's Perl?

An **awesome** programming language that allows you to quickly achieve various tasks in your way!

# Perl influenced...

# Perl influenced...

- Windows PowerShell

# Perl influenced...

- Windows PowerShell
- Ruby

# Perl influenced...

- Windows PowerShell
- Ruby
- JavaScript

# Perl influenced...

- Windows PowerShell
- Ruby
- JavaScript
- and more...

see http://en.wikipedia.org/wiki/Perl for more

# What can you do with Perl?

- Amazing web applications that are easy to scale, develop and deploy in different environments with great frameworks like Mojolicious, Catalyst, Dancer, etc.

# What can you do with Perl?

- Scientific computing (Perl Data Language)
- Controlling your UAV (UAV-Pilot)
- Generating G-codes for 3D printing (Slic3r)

I can’t think of anything that Perl would not be able to do, but another language could.

# Demo

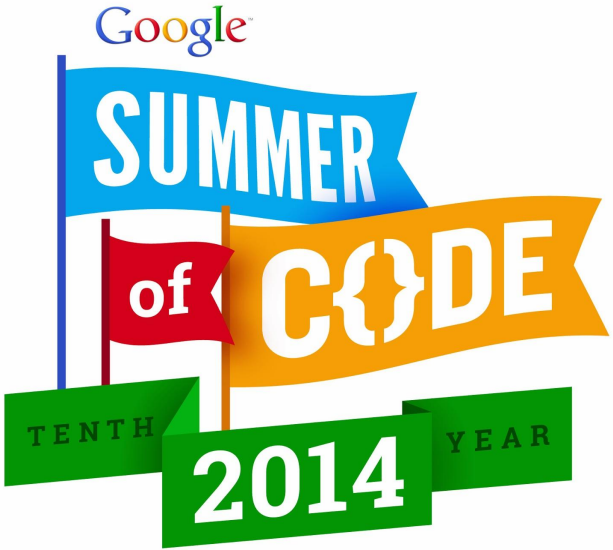
```
#!/usr/bin/perl

use Win32::GuiTest;

system("start notepad.exe");
sleep 3;
Win32::GuiTest::SendKeys("If you're reading this inside notepad,\n");
Win32::GuiTest::SendKeys("we might consider this test succesful.\n");
Win32::GuiTest::SendKeys("Now I'll send notepad an ALT{+}F4 to close\n");
Win32::GuiTest::SendKeys("it. Please wait.......");
sleep 1;
Win32::GuiTest::SendKeys(".");
sleep 1;
Win32::GuiTest::SendKeys(".");
sleep 1;
Win32::GuiTest::SendKeys(".");
Win32::GuiTest::SendKeys("%{F4}{TAB}{ENTER}");
```

# Google Summer of Code

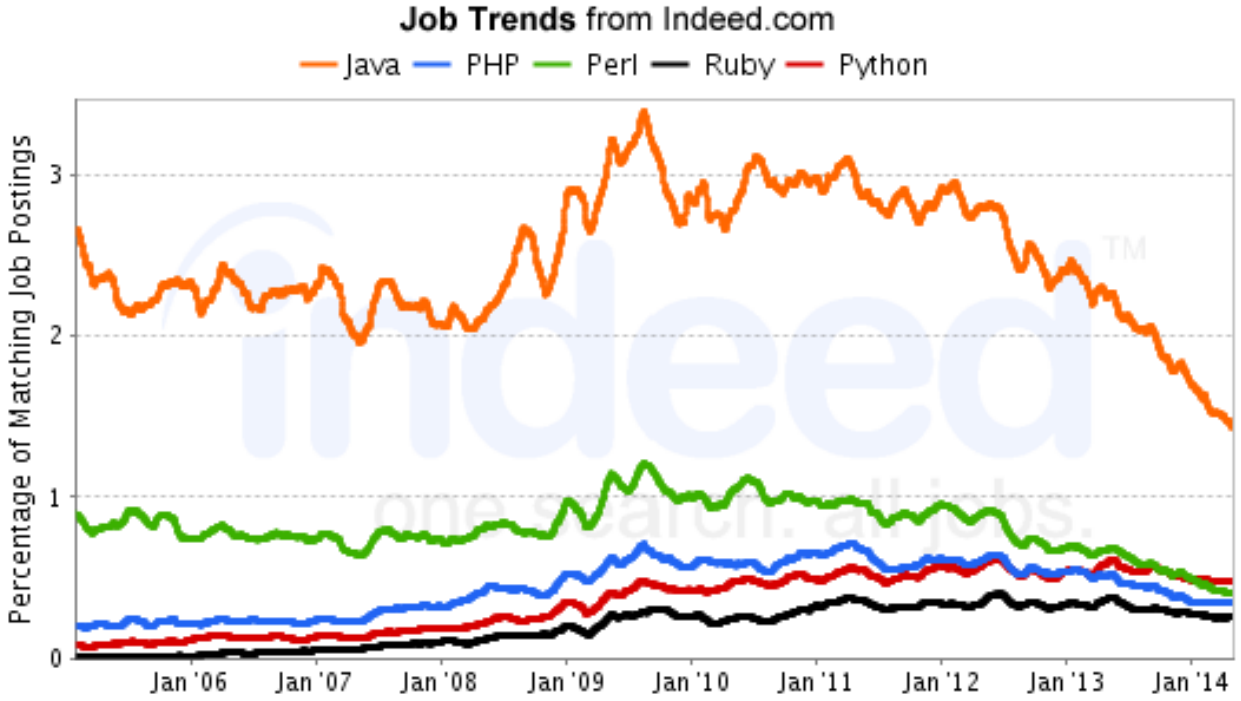
GSoC 2015 website

Google@Home source code

Google@Home start up guide




IntelliHome lib




source: goo.gl/aFyHgJ

| Oct 2014 | Oct 2013 | Change | Programming Language | Ratings | Change |
|---|---|---|---|---|---|
| 1 | 1 | | C | 17.655% | +0.41% |
| 2 | 2 | | Java | 13.506% | -2.60% |
| 3 | 3 | | Objective-C | 10.096% | +1.10% |
| 4 | 4 | | C++ | 4.868% | -3.80% |
| 5 | 6 | ^ | C# | 4.748% | -0.97% |
| 6 | 7 | ^ | Basic | 3.507% | -1.31% |
| 7 | 5 | v | PHP | 2.942% | -3.15% |
| 8 | 8 | | Python | 2.333% | -0.77% |
| 9 | 12 | ^ | Perl | 2.116% | +0.51% |
| 10 | 9 | v | Transact-SQL | 2.102% | -0.52% |
| 11 | 17 | ^^ | Delphi/Object Pascal | 1.812% | +1.11% |
| 12 | 10 | v | JavaScript | 1.771% | -0.27% |
| 13 | 11 | v | Visual Basic .NET | 1.751% | -0.18% |
| 14 | - | ^^ | Visual Basic | 1.564% | +1.56% |
| 15 | 21 | ^^ | R | 1.523% | +0.97% |
| 16 | 13 | v | Ruby | 1.128% | -0.12% |
| 17 | 81 | ^^ | Dart | 1.119% | +1.03% |
| 18 | 24 | ^^ | F# | 0.868% | +0.37% |
| 19 | - | ^^ | Swift | 0.761% | +0.76% |
| 20 | 14 | vv | Pascal | 0.726% | -0.03% |

source: TIOBE Index for October 2014 ( tiobe.com )

# Invest Regularly in Your Knowledge Portfolio

- Different languages solve the same problems in different ways. By learning several different approaches, you can help broaden your thinking and avoid getting stuck.

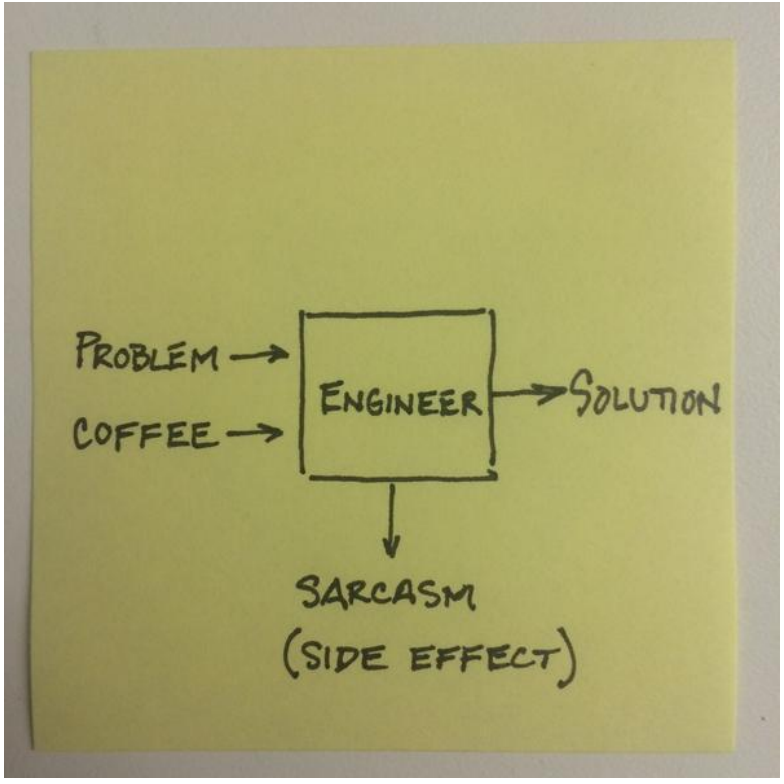
# Invest Regularly in Your Knowledge Portfolio

- Developers who know only Python find it more difficult to start working with other languages.

# Invest Regularly in Your Knowledge Portfolio

- No language can be mainstream forever.

# A rule of thumb..



# Before we start..

- ….In Perl there are also two important things to keep in mind when you code:
- **Easy things should be easy, and hard things should be possible - Larry Wall**
- **There's more than one way to do it (TMTOWTDI)**

**Perl has some of the best Unicode support today, especially with respect to regular expressions.**

**Benjamin Peterson**
**The Guts of Unicode in Python**
**PyCon 2013 [ http://goo.gl/ull8VB ]**

# Lets start learning Perl!

… and finally let’s rock a little bit

# Obtaining Perl

Windows: Strawberry Perl

(http://strawberryperl.com/)

Linux: Install from distribution repositories, e.g.

```
$ sudo apt-get install perl
# yum install perl
```

# Give me a variable!

```
use strict;
use warnings;

my $name = 'John';
my $greeting = “Hello there, $name”;

print “$greeting\n”;
```

# Give me a hash!

```
my %person = (
    name => 'John',
    age  => 29,
);

my $greeting = "Hello there, %person{'name'}";
print "$greeting\n";

%person{'age'} = 30;
```

# Give me an array!

```
my @people = ( 'John', 'Sue', 'Mary' );

for my $person (@people) {
    print “Hello there, $person\n”;
}
```

# Give me a function!

```
for my $person (@people) {
    greet($person);
}

sub greet {
    my ($person) = @_;
    print "Hello there, $person\n";
    return 1;
}
```

# Give me an object!

```
package Person;

sub new {
    my ($class, $name, $age) = @_;
    return bless {
        name => $name,
        age  => $age,
    } $class;
}
1;
```

# Give me an method!

```
sub greet {
    my ($self) = @_;
    print “Hello there, $self->{'name'}”;
    return 1;
}
```

# Using objects

```
use strict;
use warnings;

use Person;

my $person = Person->new('John', 29);

$person->greet();
```

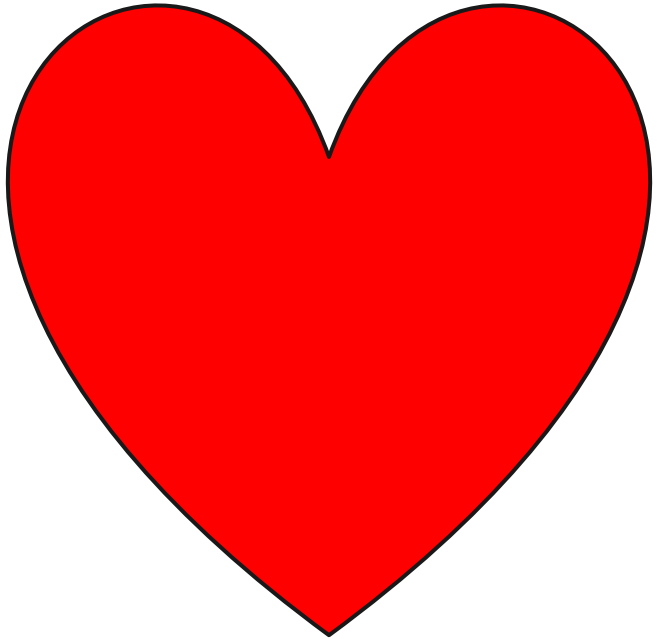
# Obtaining help

http://perldoc.perl.org

# Mojolicious

**Mojolicious** is **unique** and **awesome** **web framework**.

I



MOJOLICIOUS

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MOJOLICIOUS

# Mojolicious

**Mojolicious** is **unique** and **awesome** **web framework**.

- In 1998, Perl was called “**The duct tape that holds the internet together**”.

# Mojolicious

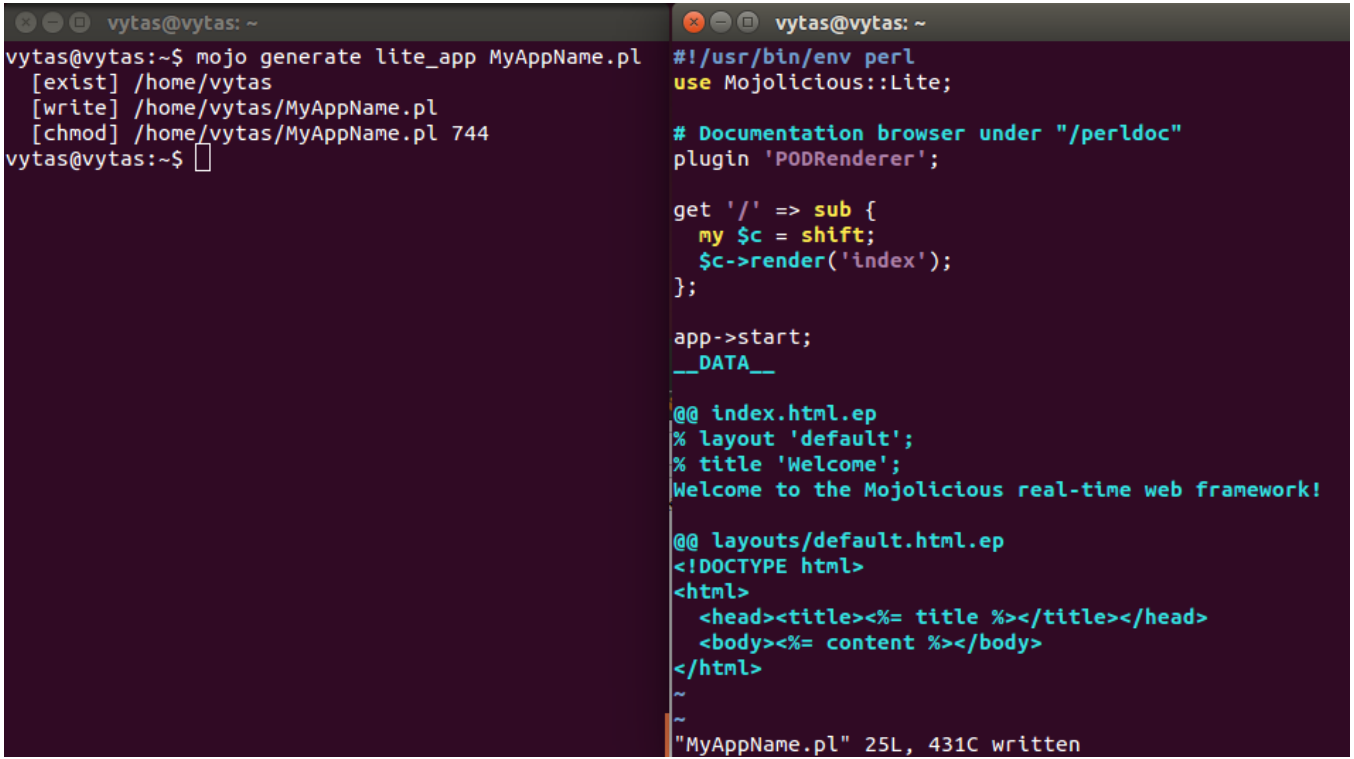
**Mojolicious** is **unique** and **awesome** **web framework**.

- In 1998, Perl was called “The duct tape that holds the internet together”.
- In 2014, Mojolicious is called “**The duct tape for the HTML5 world**”.

# mojo version

```
vytas@vytas:~$ mojo version
CORE
  Perl        (v5.18.2, linux)
  Mojolicious (5.35, Tiger Face)

OPTIONAL
  EV 4.0+                  (4.15)
  IO::Socket::IP 0.20+     (not installed)
  IO::Socket::Socks 0.64+ (not installed)
  IO::Socket::SSL 1.84+    (1.965)

You might want to update your Mojolicious to 5.54.
```

# mojo generate lite_app



# Run your app

```
vytas@vytas:~$ morbo MyAppName.pl
[Tue Oct 28 00:24:44 2014] [info] Listening at "http://*:3000".
Server available at http://127.0.0.1:3000.
[Tue Oct 28 00:24:46 2014] [debug] Your secret passphrase needs to be changed!!!
[Tue Oct 28 00:24:46 2014] [debug] GET "/".
[Tue Oct 28 00:24:46 2014] [debug] Routing to a callback.
[Tue Oct 28 00:24:46 2014] [debug] Rendering template "index.html.ep" from DATA section.
[Tue Oct 28 00:24:46 2014] [debug] Rendering template "layouts/default.html.ep" from DATA section.
[Tue Oct 28 00:24:46 2014] [debug] 200 OK (0.010284s, 97.238/s).
```

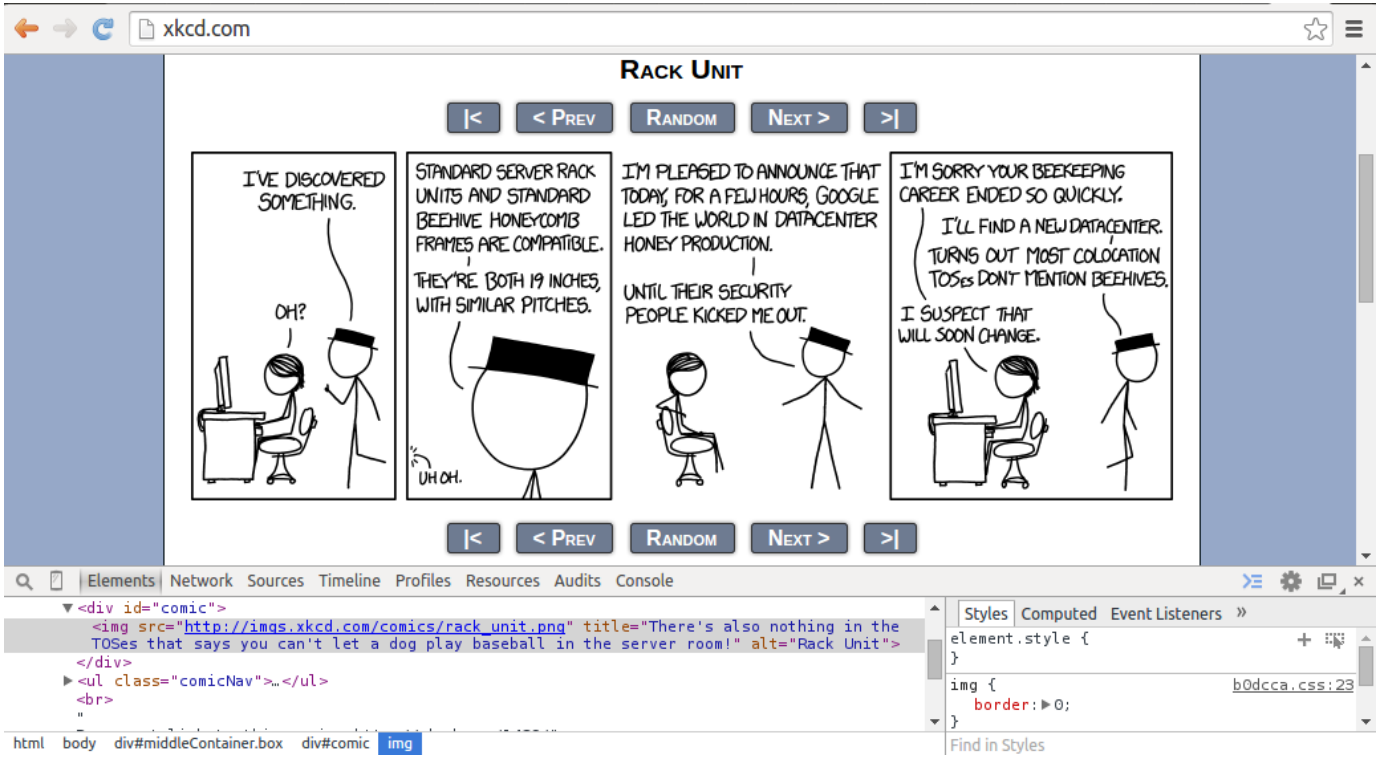
# mojo get

```
vytas@vytas:~$ mojo get 127.0.0.1:3000/
<!DOCTYPE html>
<html>
  <head><title>Welcome</title></head>
  <body>Welcome to the Mojolicious real-time web framework!
</body>
</html>
```

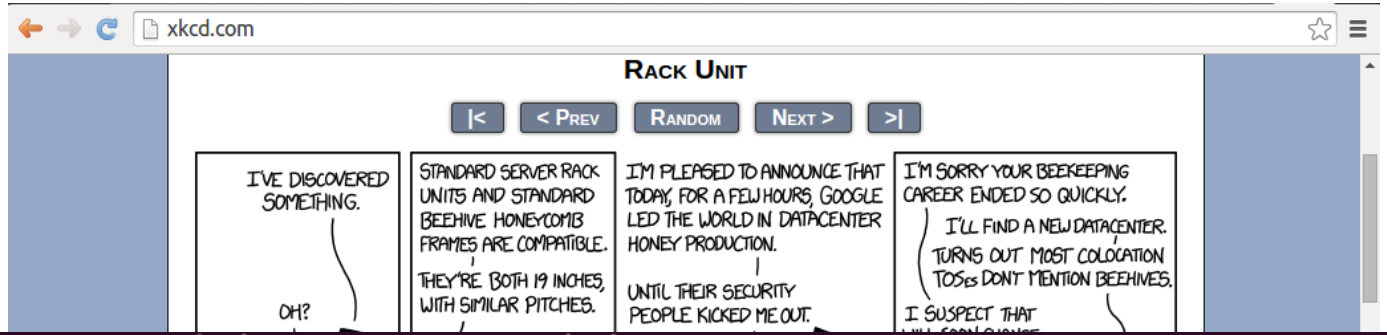
# mojo get -v

```
vytas@vytas:~$ mojo get 127.0.0.1:3000/ -v
GET / HTTP/1.1
User-Agent: Mojolicious (Perl)
Connection: keep-alive
Accept-Encoding: gzip
Host: 127.0.0.1:3000
Content-Length: 0

HTTP/1.1 200 OK
Server: Mojolicious (Perl)
Connection: keep-alive
Content-Length: 137
Date: Tue, 28 Oct 2014 00:50:20 GMT
Content-Type: text/html;charset=UTF-8

<!DOCTYPE html>
<html>
  <head><title>Welcome</title></head>
  <body>Welcome to the Mojolicious real-time web framework!
</body>
</html>
```

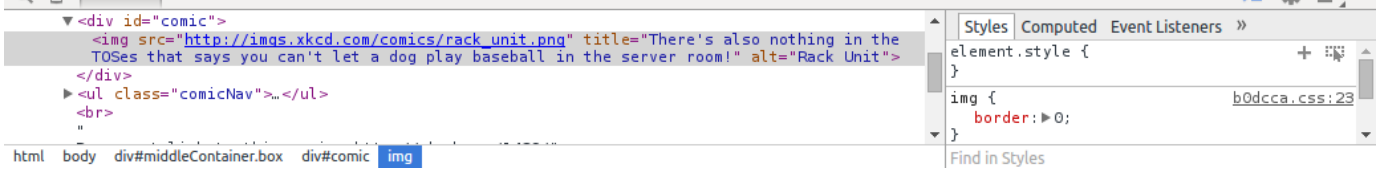
# How to get newest comic from xkcd.com ?



# How to get newest comic from xkcd.com ?




```
vytas-local@vytas-desktop:~$ mojo get xkcd.com '#comic'
<div id="comic">
<img alt="Rack Unit" src="http://imgs.xkcd.com/comics/rack_unit.png" title="There&#39;s also
nothing in the TOSes that says you can&#39;t let a dog play baseball in the server room!" />
</div>
vytas-local@vytas-desktop:~$ mojo get xkcd.com '#comic img' attr src
http://imgs.xkcd.com/comics/rack_unit.png
```



# mojo generate app

```
vytas@vytas:~$ mojo generate app MyAppName
  [mkdir] /home/vytas/my_app_name/script
  [write] /home/vytas/my_app_name/script/my_app_name
  [chmod] /home/vytas/my_app_name/script/my_app_name 744
  [mkdir] /home/vytas/my_app_name/lib
  [write] /home/vytas/my_app_name/lib/MyAppName.pm
  [mkdir] /home/vytas/my_app_name/lib/MyAppName/Controller
  [write] /home/vytas/my_app_name/lib/MyAppName/Controller/Example.pm
  [mkdir] /home/vytas/my_app_name/t
  [write] /home/vytas/my_app_name/t/basic.t
  [mkdir] /home/vytas/my_app_name/log
  [mkdir] /home/vytas/my_app_name/public
  [write] /home/vytas/my_app_name/public/index.html
  [mkdir] /home/vytas/my_app_name/templates/layouts
  [write] /home/vytas/my_app_name/templates/layouts/default.html.ep
  [mkdir] /home/vytas/my_app_name/templates/example
  [write] /home/vytas/my_app_name/templates/example/welcome.html.ep
vytas@vytas:~$ tree my_app_name/
my_app_name/
├── lib
│   ├── MyAppName
│   │   └── Controller
│   │       └── Example.pm
│   └── MyAppName.pm
├── log
├── public
│   └── index.html
├── script
│   └── my_app_name
├── t
│   └── basic.t
└── templates
    ├── example
    │   └── welcome.html.ep
    └── layouts
        └── default.html.ep

10 directories, 7 files
```

# mojo test

```perl
use Mojo::Base -strict;

use Test::More;
use Test::Mojo;

my $t = Test::Mojo->new('MyAppName');
$t->get_ok('/')
  ->status_is(200)
  ->content_like(qr/Mojolicious/i);

done_testing();
```

```
vytas@vytas:~$ ./my_app_name/script/my_app_name test -v
Running tests from "/home/vytas/my_app_name/t".
/home/vytas/my_app_name/t/basic.t ..
ok 1 - GET /
ok 2 - 200 OK
ok 3 - content is similar
1..3
ok
All tests successful.
Files=1, Tests=3,  1 wallclock secs ( 0.03 usr  0.00 sys
+  0.27 cusr  0.02 csys =  0.32 CPU)
Result: PASS
```

# https://metacpan.org/

# Upcoming events ( 2014 )

## London Perl Workshop ( 8 November )

- http://act.yapc.eu/lpw2014/

# Join Perl Mongers!

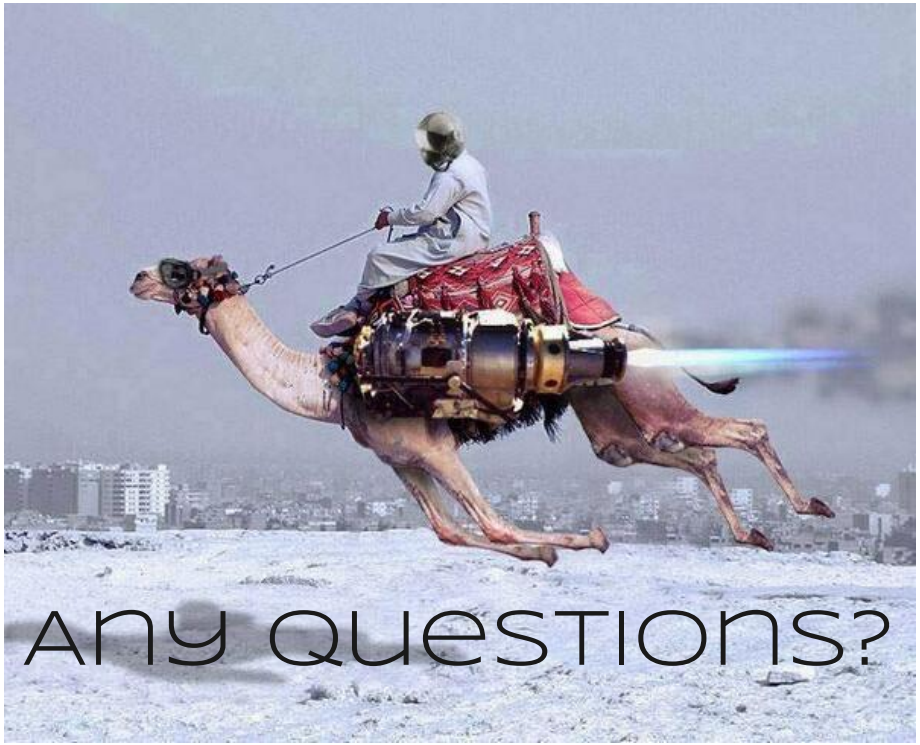
- Come to Perl social meetings, get a free drink!
- Next one Wed 5th Nov, Platform Tavern, Soton
- More information on http://southampton.pm.org/

# Apply for send-a-newbie

Annually 1 newbie gets sent to YAPC for free

http://www.send-a-newbie.enlightenedperl.org/index.html

# That’s All Folks



# Thank you

THANK
YOU
GRACIAS
ARIGATO
SHUKURIA
DANKSCHEEN
BÏYAN
SHUKRIA
TINGKI
YAQHANYELAY
TASHAKKUR ATU
SUKSAMA
EKHMET
GRAZIE
MEHRBANI
PALDIES
BOLZÏN
MERCI
JUSPAXAR
GOZAIMASHITA
EFCHARISTO
KOMAPSUMNIDA
MAAKE
SPASSIBO
SNACHALHUYA
NUHUN
CHALTU
WABEEJA
MAITEKA
HUI
GUI
HATUR
SPASIBO
DENKAUJA
NENACHALHYA
UNALCHÉESH
EKOJU
SIKOMO
MAKETAI
MINMONCHAR
ATTO
LAH
SANCO
MERASTAWHY
GAEJTHO
TAVTAPUCH
MEDAWAGSE
AGUYJE
FAKAAUE
BAIKA

# Bonus slides

Didn’t have time to cover bonus slides, hence removed...