Building Web Apps
with Gantry and Bigtop

Phil Crow

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Sunflower Broadband

Lawrence, KS

Who in The World are we?

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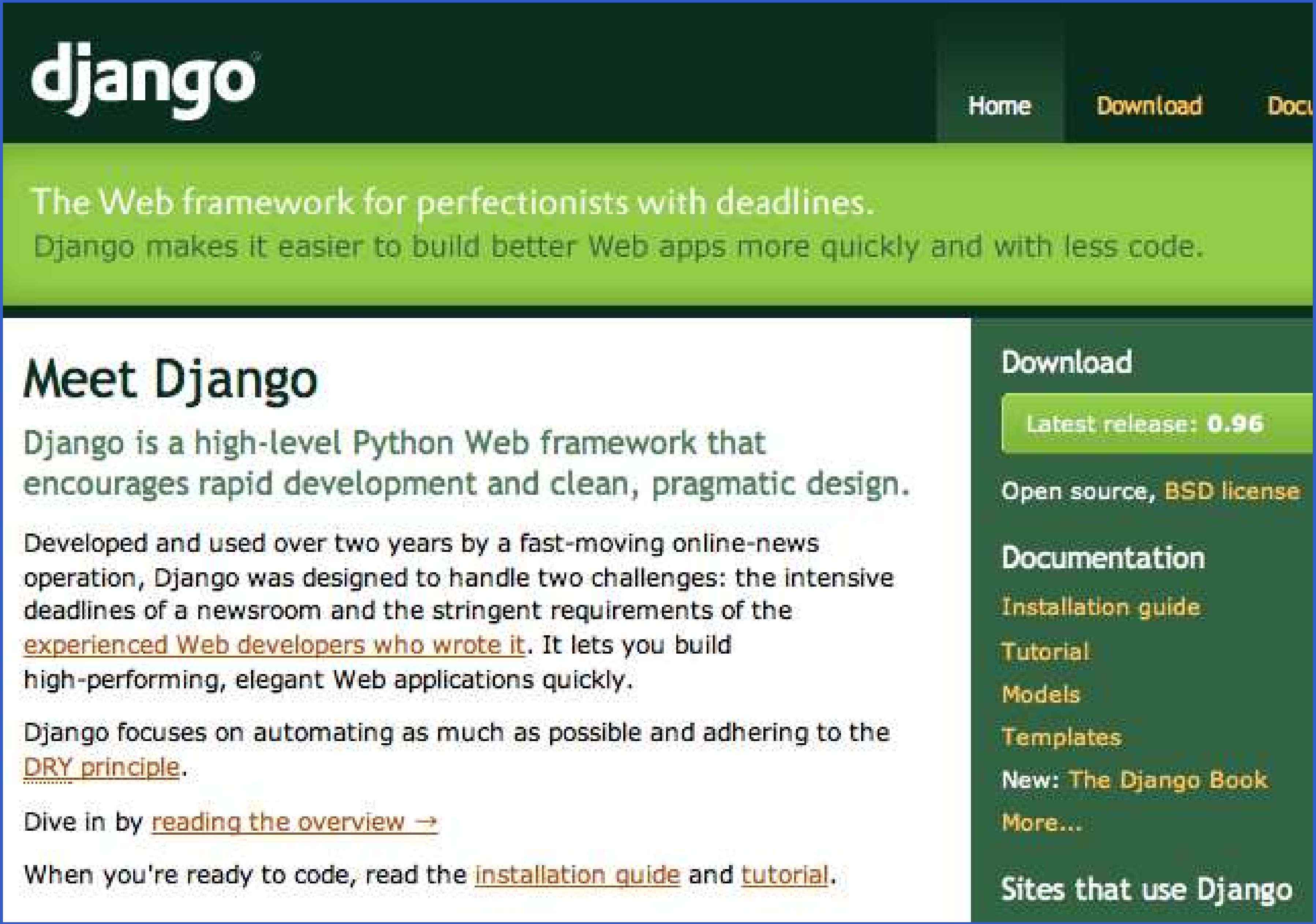


The Web framework for perfectionists with deadlines.

Django makes it easier to build better Web apps more quickly and with less code.

Meet Django

Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design.

Developed and used over two years by a fast-moving online-news operation, Django was designed to handle two challenges: the intensive deadlines of a newsroom and the stringent requirements of the experienced Web developers who wrote it. It lets you build high-performing, elegant Web applications quickly.

Django focuses on automating as much as possible and adhering to the DRY principle.

Dive in by reading the overview →

When you're ready to code, read the installation guide and tutorial.

Download

Latest release: **0.96**

Open source, BSD license

Documentation

Installation guide

Tutorial

Models

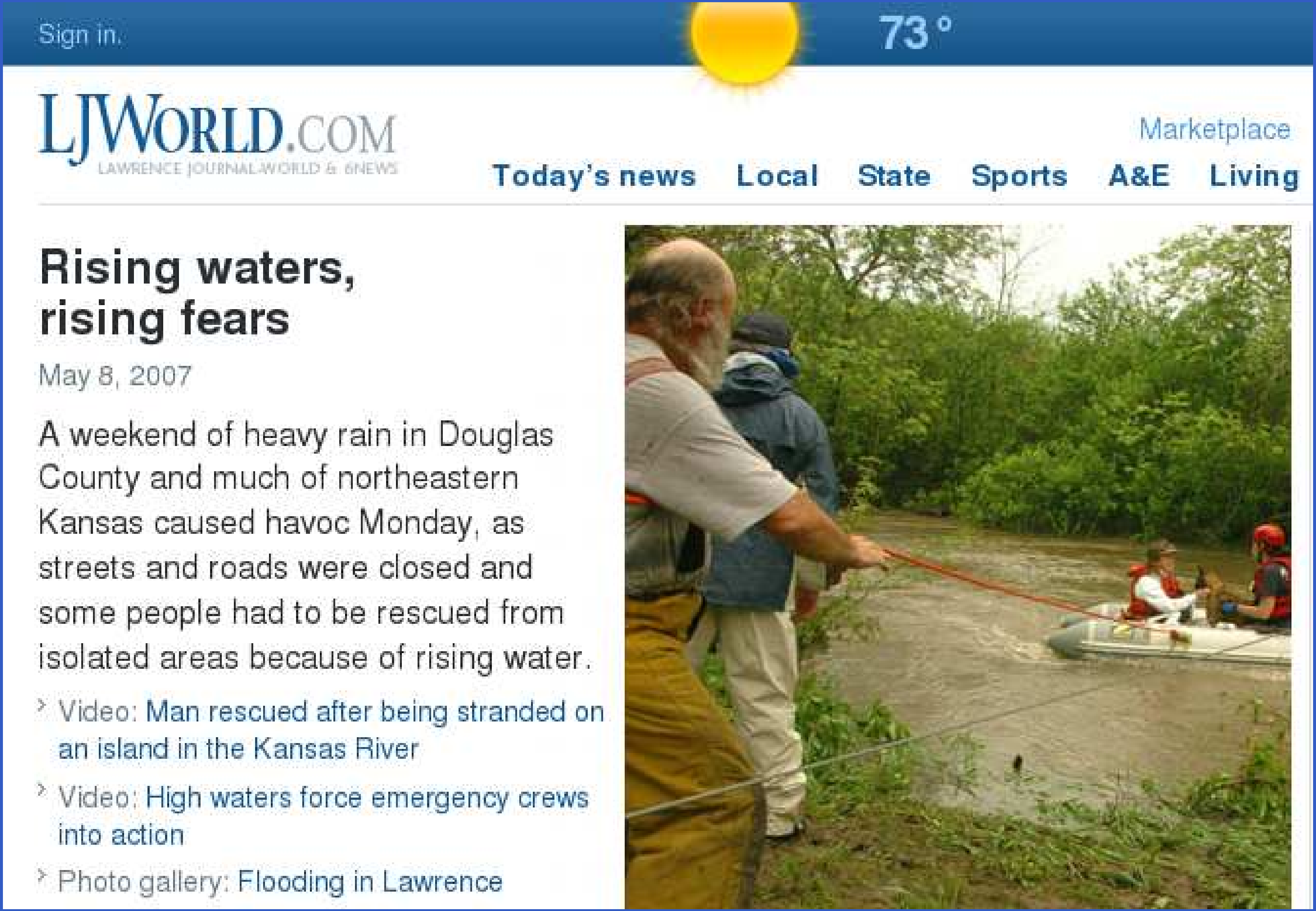
Templates

New: The Django Book

More...

Sites that use Django

Who in The World are we?



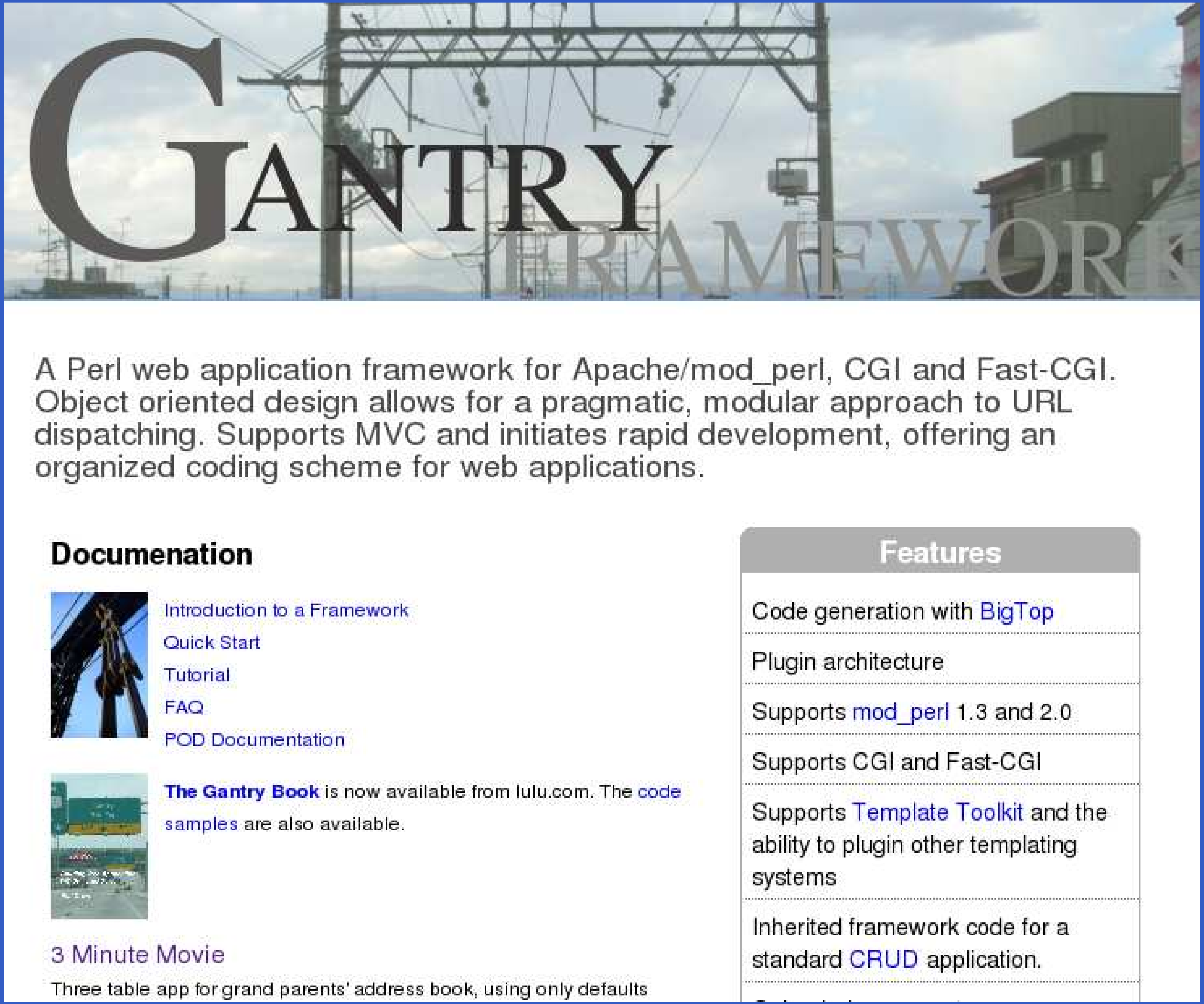
Rising waters, rising fears

May 8, 2007

A weekend of heavy rain in Douglas County and much of northeastern Kansas caused havoc Monday, as streets and roads were closed and some people had to be rescued from isolated areas because of rising water.

- Video: Man rescued after being stranded on an island in the Kansas River
- Video: High waters force emergency crews into action
- Photo gallery: Flooding in Lawrence

Who in The World are we?



A Perl web application framework for Apache/mod_perl, CGI and Fast-CGI. Object oriented design allows for a pragmatic, modular approach to URL dispatching. Supports MVC and initiates rapid development, offering an organized coding scheme for web applications.

Documentation

- Introduction to a Framework
- Quick Start
- Tutorial
- FAQ
- POD Documentation

The Gantry Book is now available from lulu.com. The code samples are also available.

3 Minute Movie

Three table app for grand parents' address book, using only defaults

Features

- Code generation with BigTop
- Plugin architecture
- Supports mod_perl 1.3 and 2.0
- Supports CGI and Fast-CGI
- Supports Template Toolkit and the ability to plugin other templating systems
- Inherited framework code for a standard CRUD application.

What do we build?

Apps to support our business

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- press run efficiency - Gutenberg

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Apps to support our business

- press run efficiency - Gutenberg
- what’s in the paper and on TV - News Budget

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- press run efficiency - Gutenberg
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- on site tech scheduler - Hoffa

Sample App Background

Carpool conversation

Sample App Background

Carpool conversation

Rob: How do you pick stocks?

Sample App Background

Carpool conversation
Rob: How do you pick stocks?
Phil: Three things:

- Good products
- Good place to work
- Good current price

Sample App Background

Carpool conversation
Rob: How do you pick stocks?
Phil: Three things:

- Good products
- Good place to work
- Good current price

Rob: So, you’re a fundamentalist

Hello, Rob!

```perl
package HiRob;
use strict; use warnings;

use base 'Gantry';

sub do_main {
    my $self = shift;

    return 'Hello, Rob';
}

1;
```

Hello, Rob!

```
LoadModule perl_module modules/mod_perl.so
LoadModule apreq_module modules/mod_apreq2.so

<Perl>
    use lib '/path/to/hirob/dir';
    use HiRob qw{
        -Engine=MP20
        -TemplateEngine=Default
    };
</Perl>

<Location />
    SetHandler  perl-script
    PerlHandler HiRob
</Location>
```

Hello, Rob!

```
<Perl>
    use lib '/path/to/hirob/dir';
    use HiRob qw{
        -Engine=MP20
        -TemplateEngine=TT
    };
</Perl>

<Location />
    PerlSetVar root /path/to/hirob/templates
    SetHandler perl-script
    PerlHandler HiRob
</Location>
```

Hello, Rob!

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</Location>
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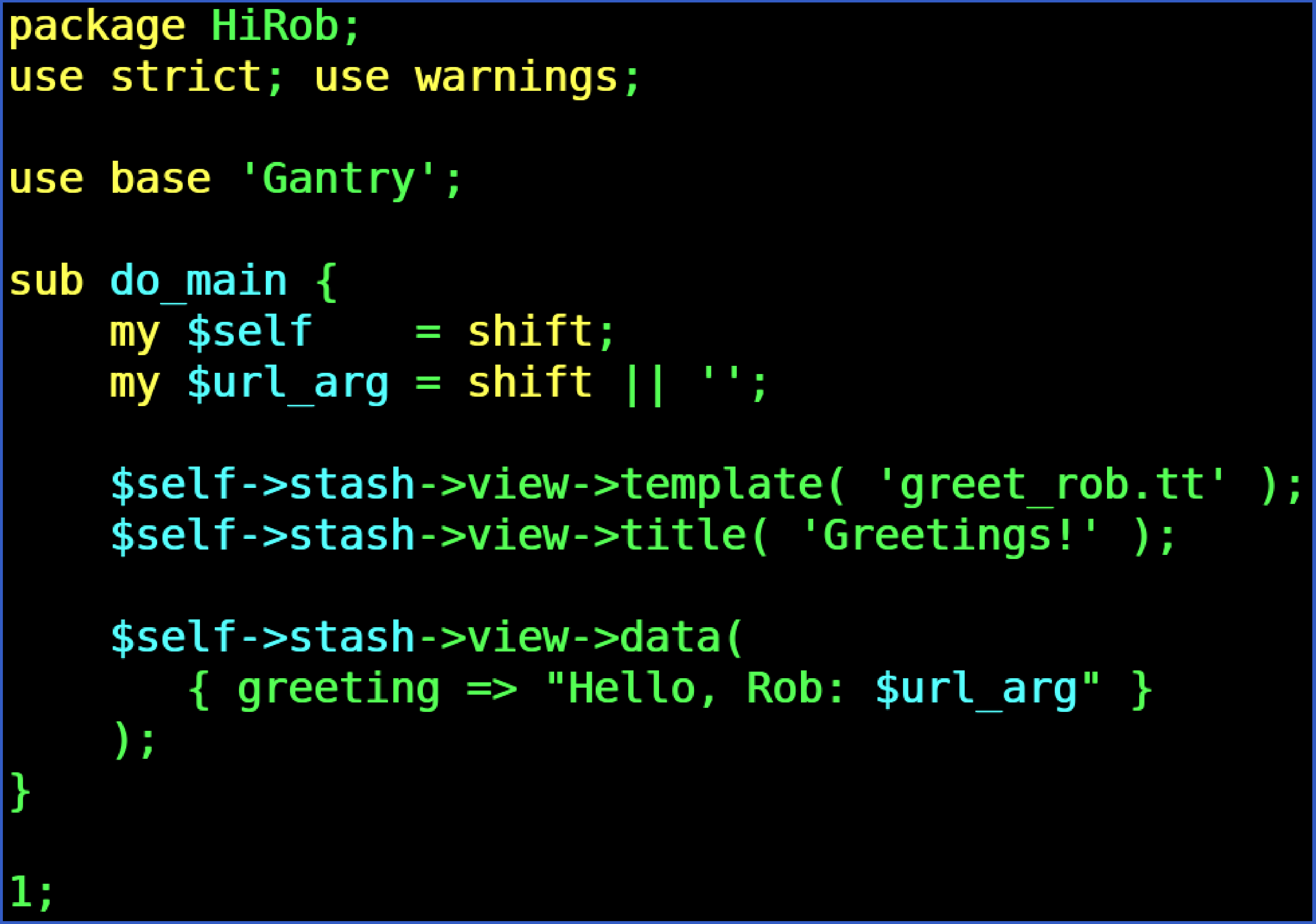
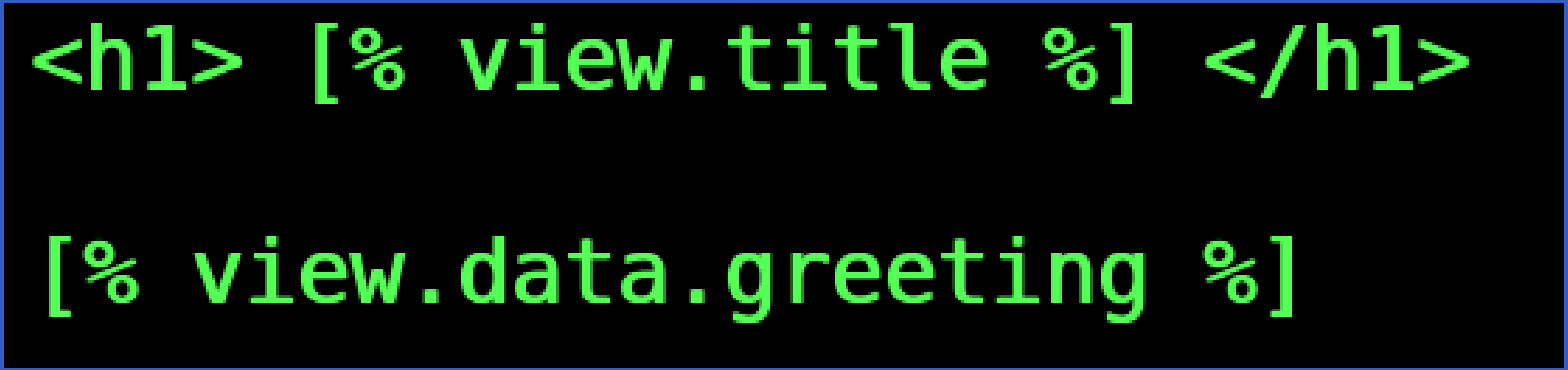


```
package HiRob;
use strict; use warnings;

use base 'Gantry';

sub do_main {
    my $self    = shift;
    my $url_arg = shift || '';

    $self->stash->view->template( 'greet_rob.tt' );
    $self->stash->view->title( 'Greetings!' );

    $self->stash->view->data(
       { greeting => "Hello, Rob: $url_arg" }
    );
}

1;
```

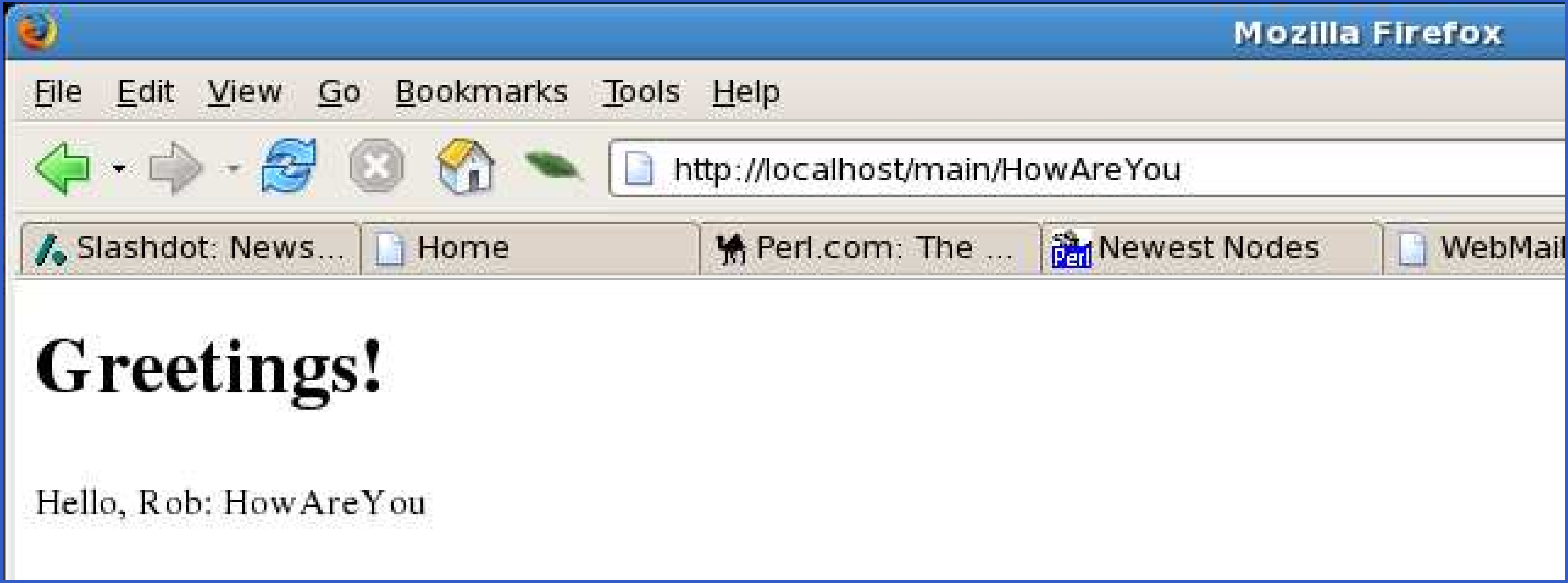
Hello, Rob!



```
<h1> [% view.title %] </h1>

[% view.data.greeting %]
```

Hello, Rob!

```
<h1> [% view.title %] </h1>

[% view.data.greeting %]
```


Mozilla Firefox
File Edit View Go Bookmarks Tools Help
Slashdot: News... Home Perl.com: The ... Newest Nodes WebMail

http://localhost/main/HowAreYou

Greetings!

Hello, Rob: HowAreYou

Sample App: Track Stops

Data Model - Key to Most Apps

- stock - symbol, name

Sample App: Track Stops

Data Model - Key to Most Apps

- stock - symbol, name
- lot - stock, bought, cost, shares

Sample App: Track Stops

Data Model - Key to Most Apps

- stock - symbol, name
- lot - stock, bought, cost, shares
- stop - stock, price per share, executed

Starting Small

-
  ```
  bigtop -n StockTrack ’stock<-lot stop->stock
  stock(symbol,name)
  lot(bought:date,cost:int4,shares:int4)
  stop(price:int4,+executed:date)’
  ```

Starting Small

- bigtop -n StockTrack ’stock<-lot stop->stock
  stock(symbol,name)
  lot(bought:date,cost:int4,shares:int4)
  stop(price:int4,+executed:date)’
- cd StockTrack

Starting Small

- bigtop -n StockTrack 'stock<-lot stop->stock
  stock(symbol,name)
  lot(bought:date,cost:int4,shares:int4)
  stop(price:int4,+executed:date)'
- cd StockTrack
- sqlite3 app.db < docs/schema.sqlite

Starting Small

- `bigtop -n StockTrack ’stock<-lot stop->stock stock(symbol,name) lot(bought:date,cost:int4,shares:int4) stop(price:int4,+executed:date)’`
- `cd StockTrack`
- `sqlite3 app.db < docs/schema.sqlite`
- `./app.server`

Starting Small

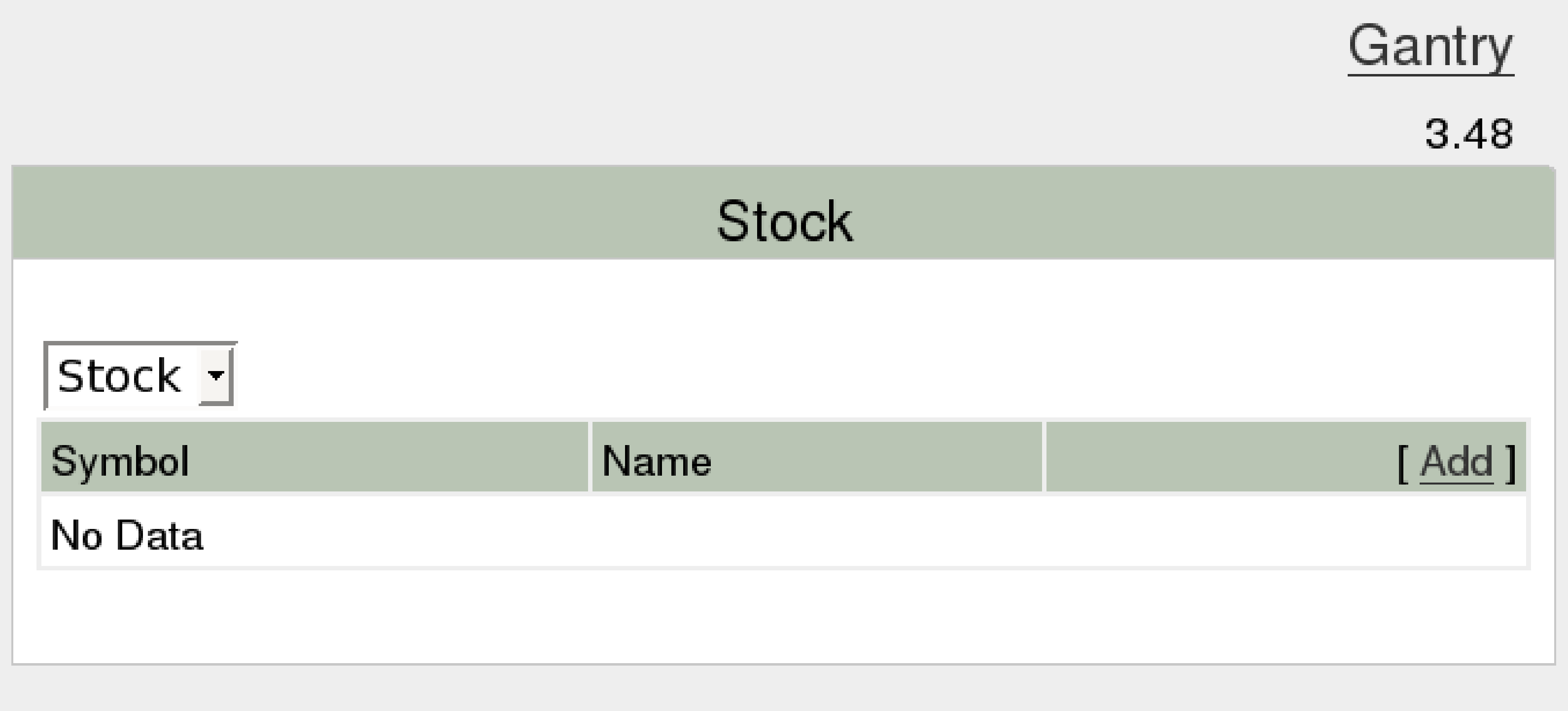
-
  ```
  bigtop -n StockTrack ’stock<-lot stop->stock
  stock(symbol,name)
  lot(bought:date,cost:int4,shares:int4)
  stop(price:int4,+executed:date)’
  ```

-
  ```
  cd StockTrack
  ```

-
  ```
  sqlite3 app.db < docs/schema.sqlite
  ```

-
  ```
  ./app.server
  Available urls:
  http://localhost:8080/
  http://localhost:8080/lot
  http://localhost:8080/stop
  http://localhost:8080/stock
  ```

Running the Small App



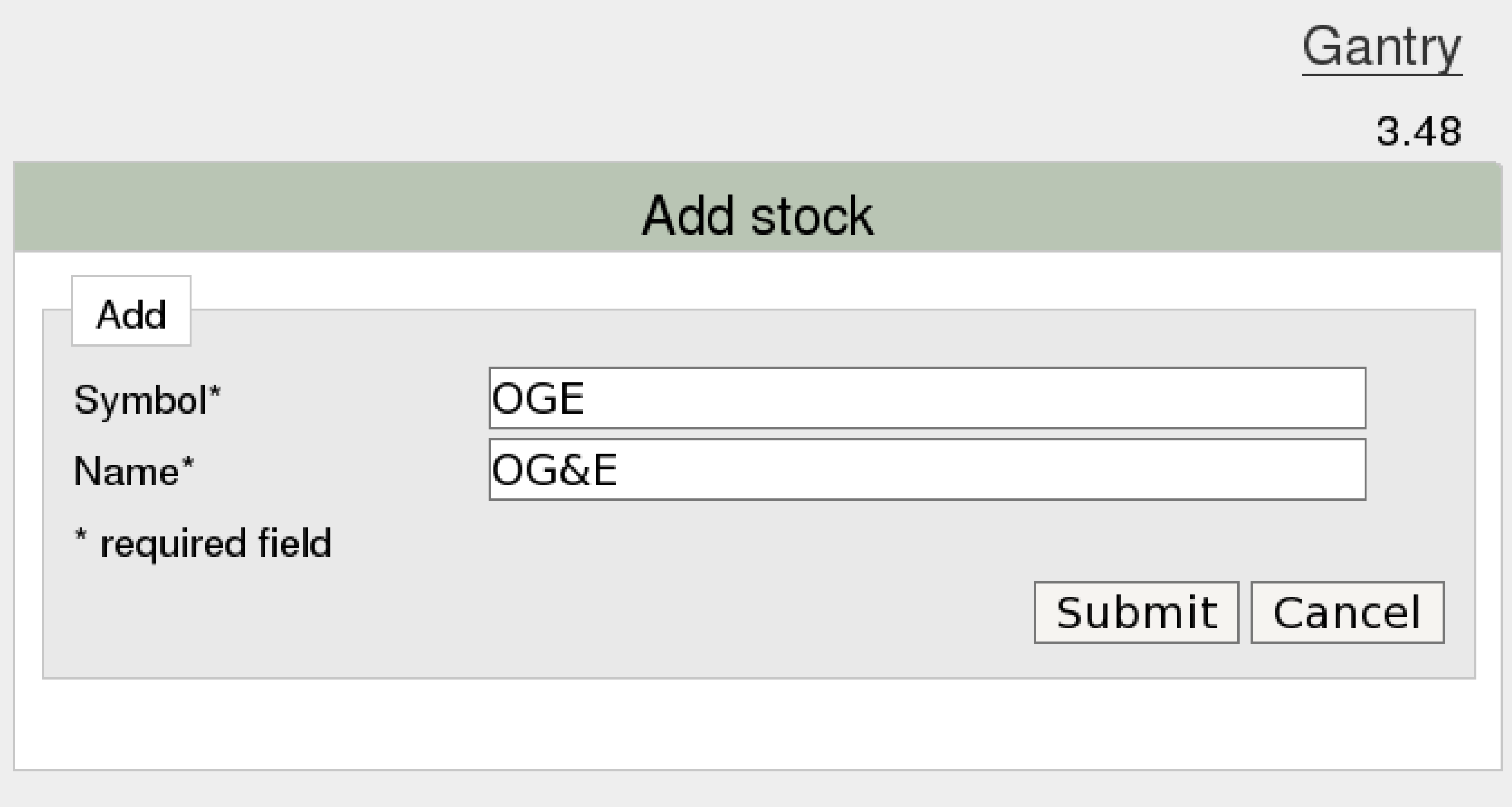
Gantry

3.48

Stock

Symbol	Name	[Add]
No Data		

Running the Small App



Gantry

3.48

Add stock

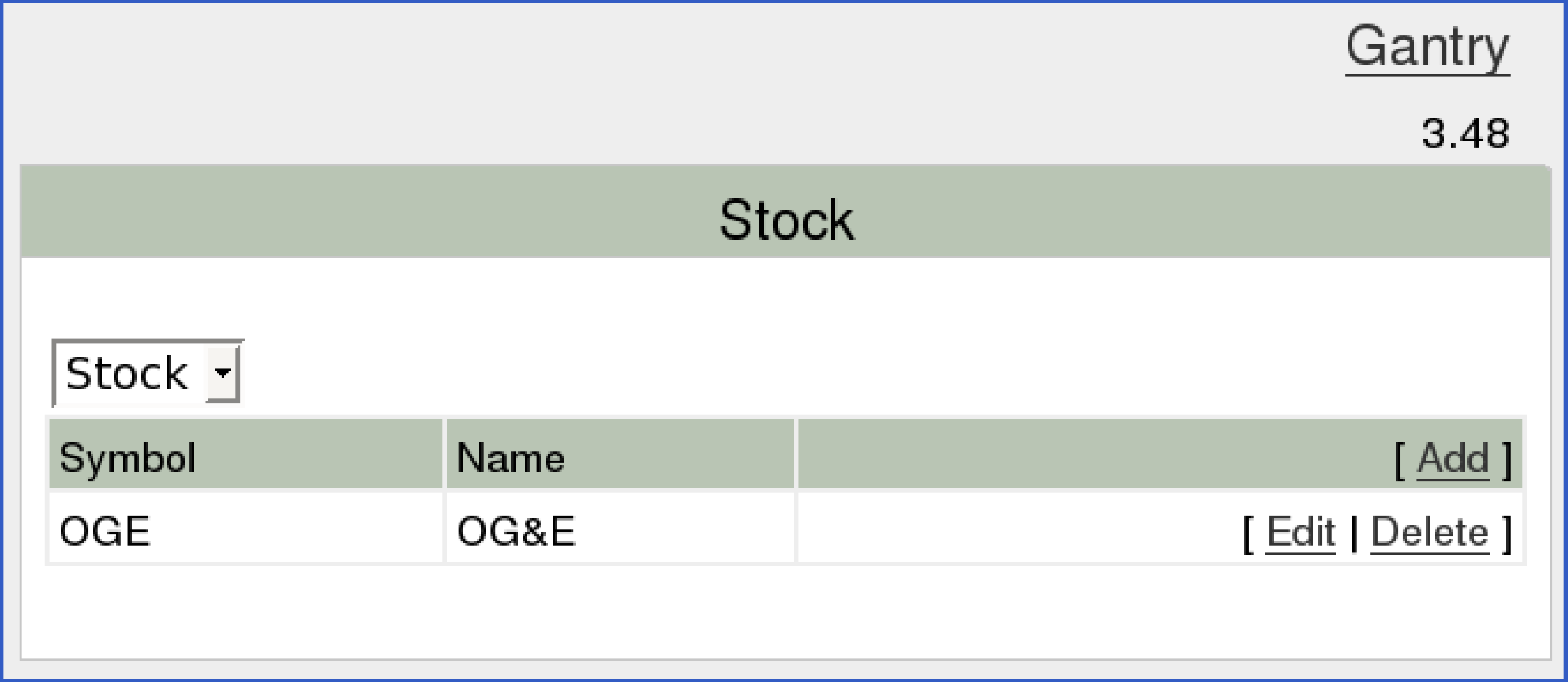
Add

Symbol* OGE

Name* OG&E

* required field

Running the Small App



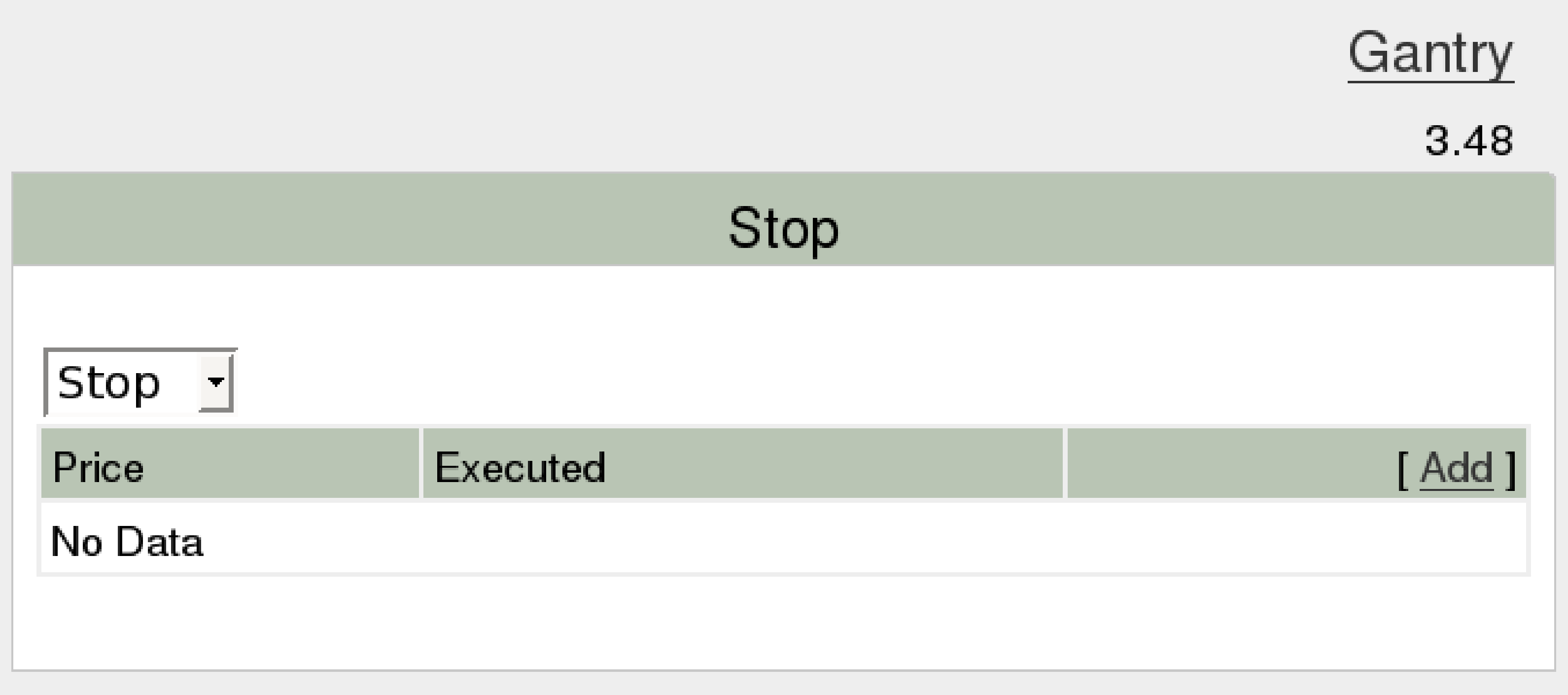
Gantry

3.48

Stock

Symbol	Name	[Add]
OGE	OG&E	[Edit | Delete]

Running the Small App



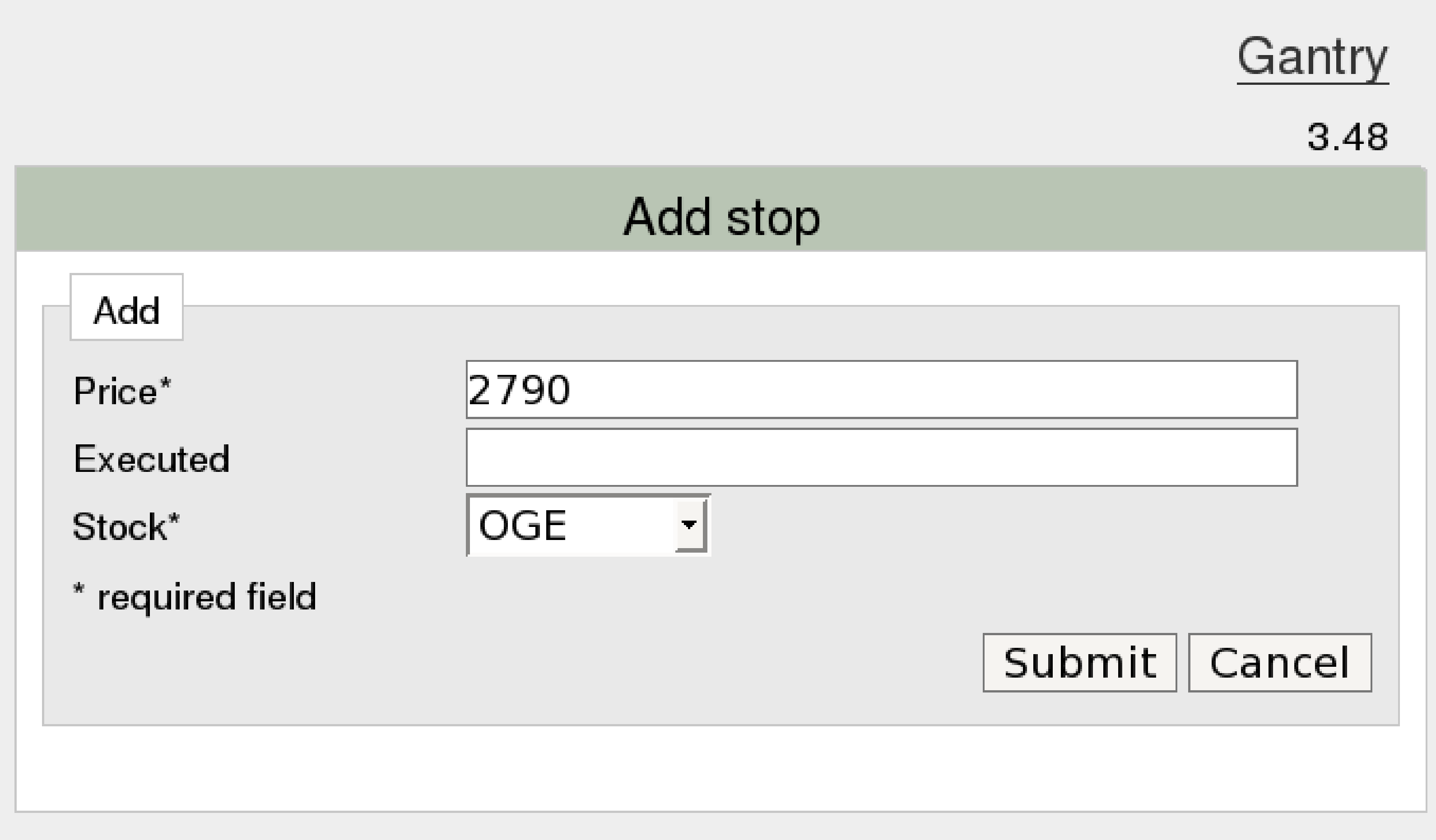
Gantry

3.48

Stop

Price	Executed	[Add]
No Data		

Running the Small App



Add stop

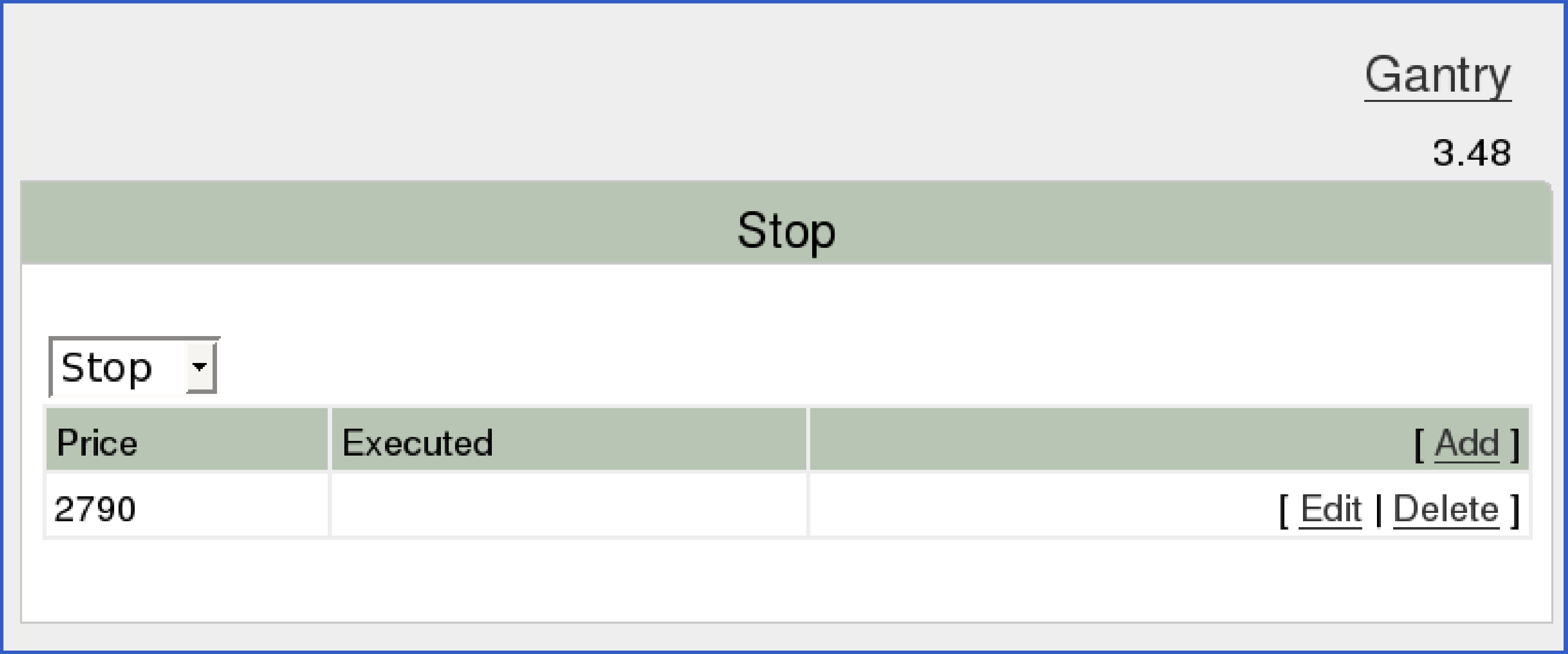
Price* 2790

Executed

Stock* OGE

* required field

Running the Small App

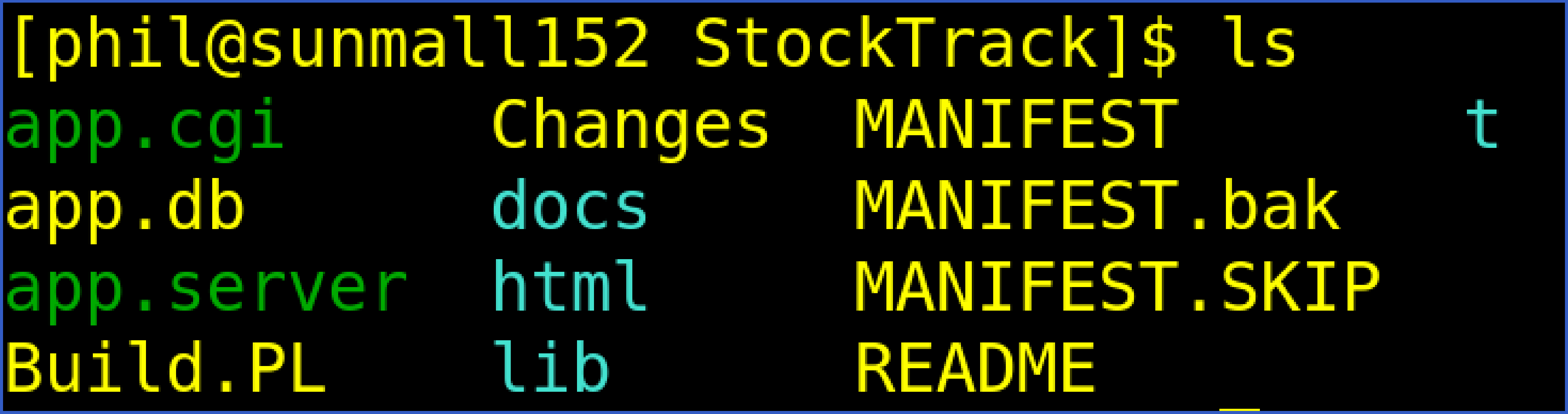


3.48

Stop

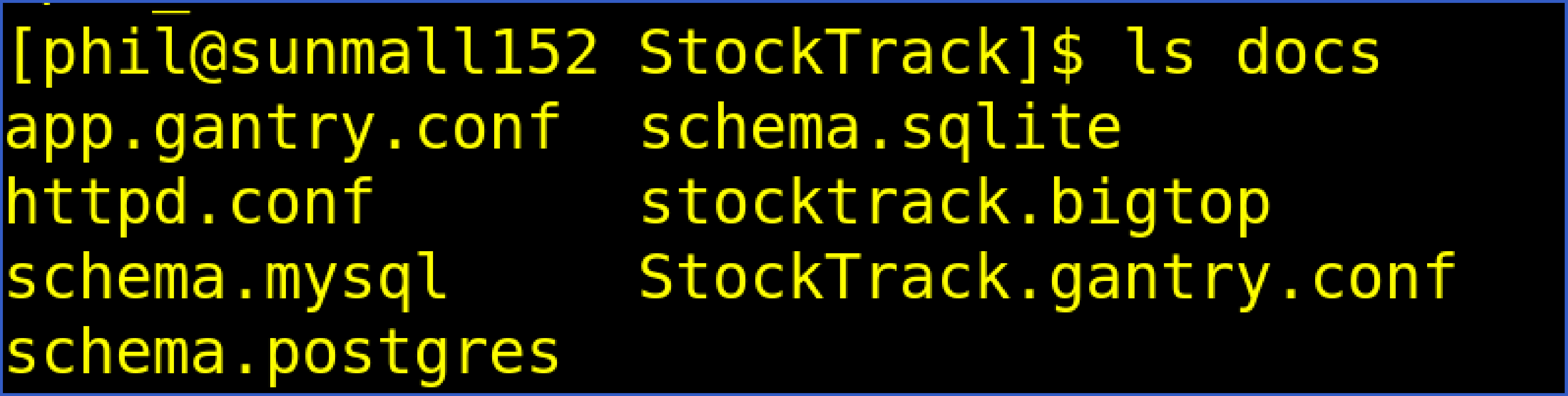
Price	Executed	[Add]
2790		[Edit | Delete]

Tour of Generated Files



```
[phil@sunmall152 StockTrack]$ ls
app.cgi     Changes  MANIFEST       t
app.db      docs     MANIFEST.bak
app.server  html     MANIFEST.SKIP
Build.PL    lib      README
```

Tour of Generated Files

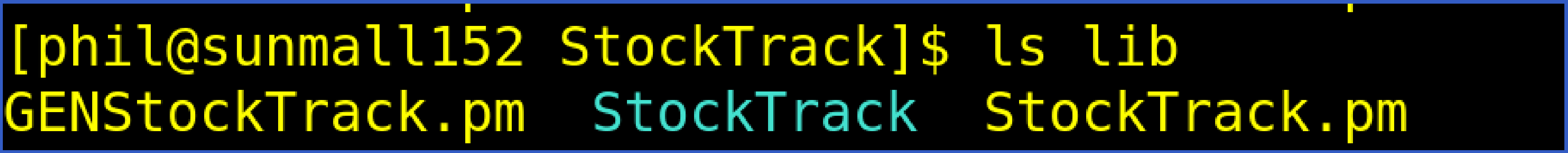


```
[phil@sunmall152 StockTrack]$ ls docs
app.gantry.conf  schema.sqlite
httpd.conf       stocktrack.bigtop
schema.mysql     StockTrack.gantry.conf
schema.postgres
```

Tour of Generated Files

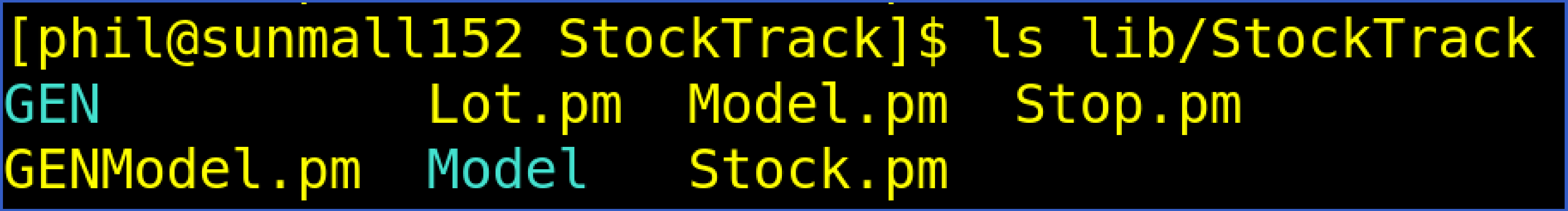
```
[phil@sunmall152 StockTrack]$ ls t
01_use.t  02_pod.t  03_podcover.t  10_run.t
```

Tour of Generated Files



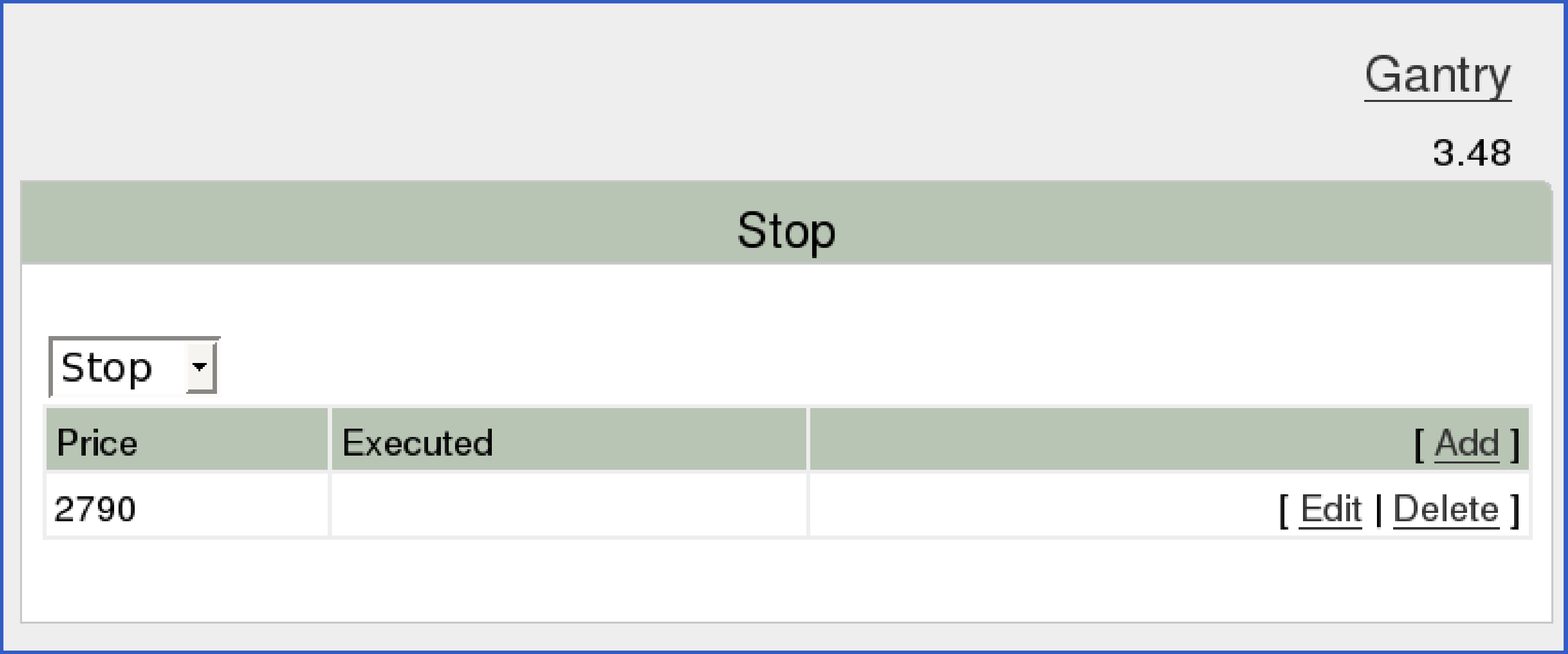
```
[phil@sunmall152 StockTrack]$ ls lib
GENStockTrack.pm  StockTrack  StockTrack.pm
```

Tour of Generated Files



```
[phil@sunmall152 StockTrack]$ ls lib/StockTrack
GEN             Lot.pm   Model.pm   Stop.pm
GENModel.pm     Model    Stock.pm
```

Getting Away from Defaults



Gantry

3.48

Stop

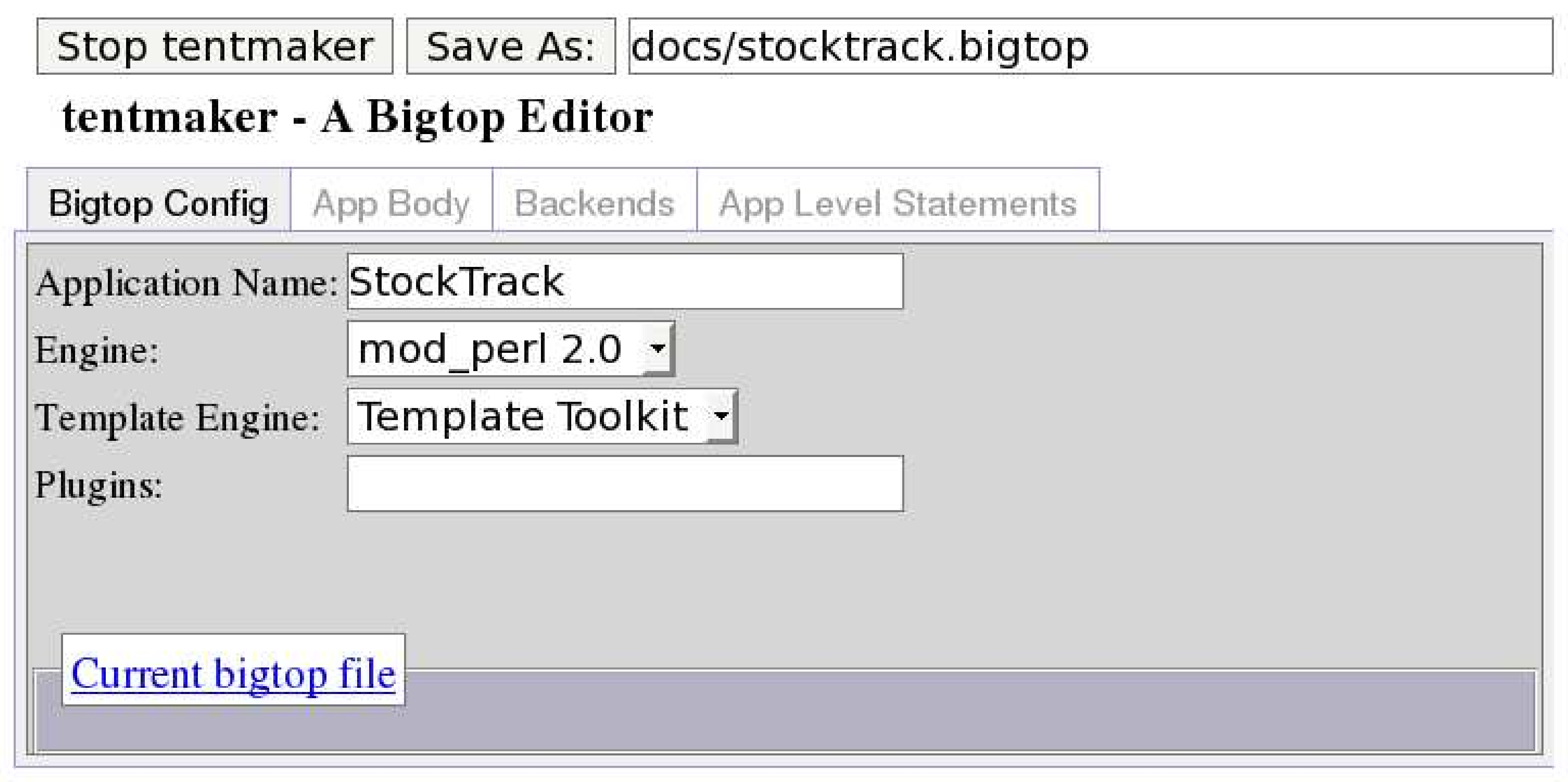
Price	Executed	[Add]
2790		[Edit | Delete]

Getting Away from Defaults

```
tentmaker docs/stocktrack.bigtop
```

Getting Away from Defaults

tentmaker docs/stocktrack.bigtop



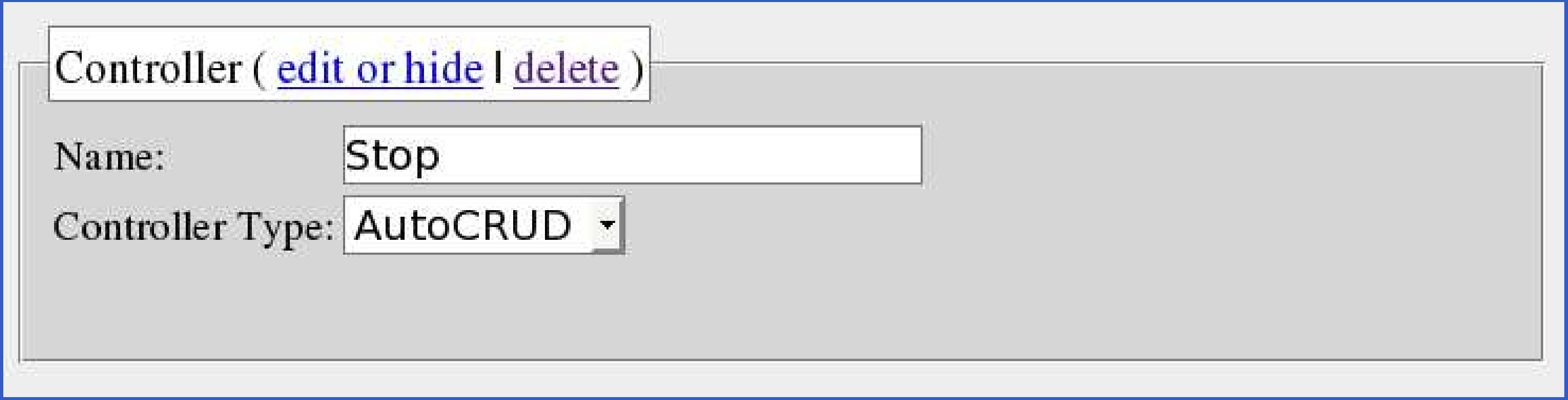
Save As: docs/stocktrack.bigtop

tentmaker - A Bigtop Editor

Application Name: StockTrack
Engine: mod_perl 2.0
Template Engine: Template Toolkit
Plugins:

Getting Away from Defaults

```
tentmaker docs/stocktrack.bigtop
```



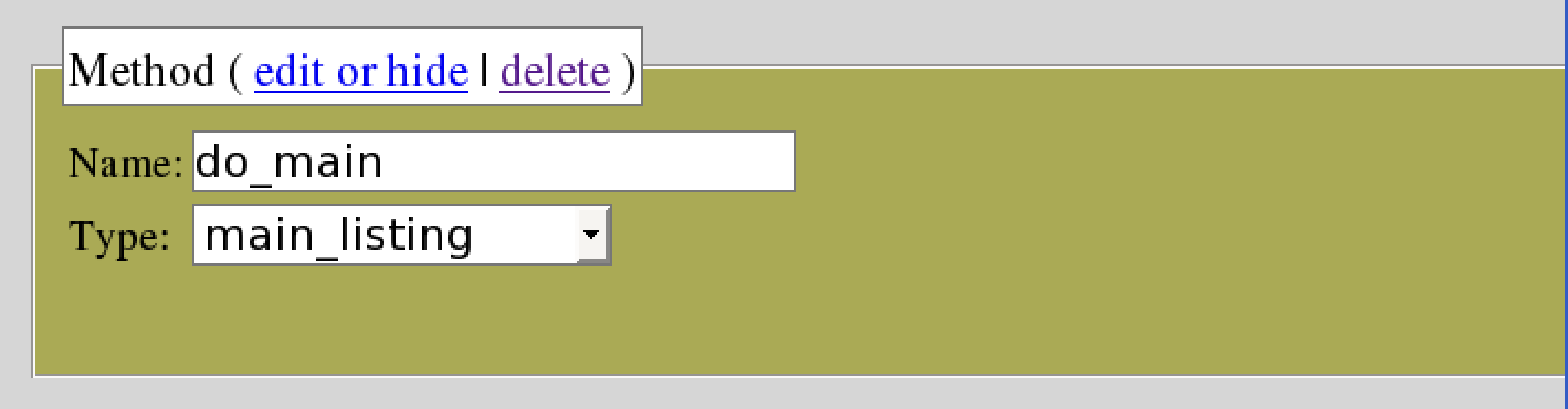
Controller (edit or hide | delete)

Name: Stop

Controller Type: AutoCRUD

Getting Away from Defaults

tentmaker docs/stocktrack.bigtop



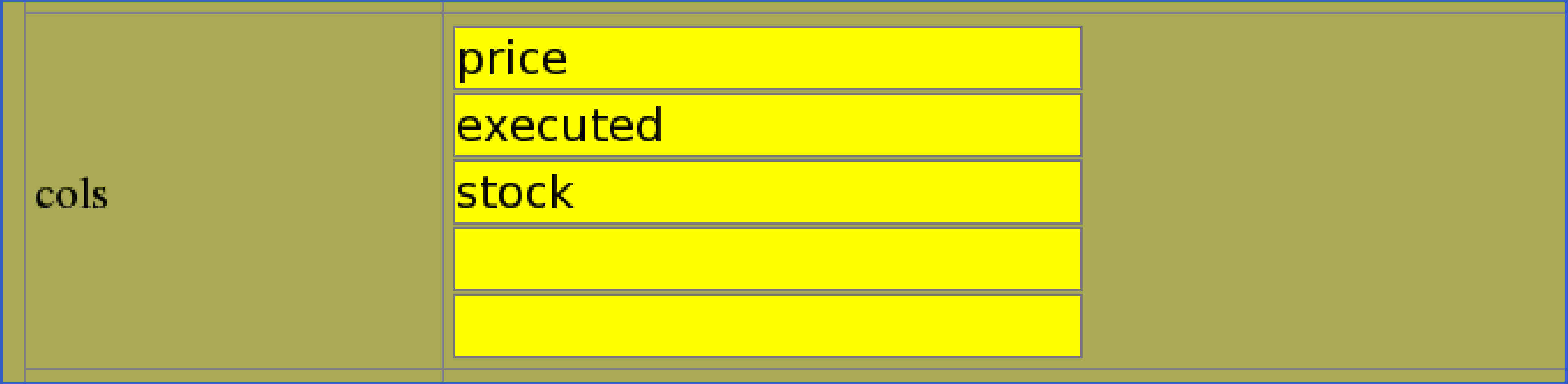
Method (edit or hide | delete)

Name: do_main

Type: main_listing

Getting Away from Defaults

tentmaker docs/stocktrack.bigtop



cols	price executed stock

Getting Away from Defaults

```
tentmaker docs/stocktrack.bigtop
bigtop docs/stocktrack.bigtop all
```

Getting Away from Defaults

```
tentmaker docs/stocktrack.bigtop
bigtop docs/stocktrack.bigtop all
./app.server
```

Getting Away from Defaults

```
tentmaker docs/stocktrack.bigtop
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```

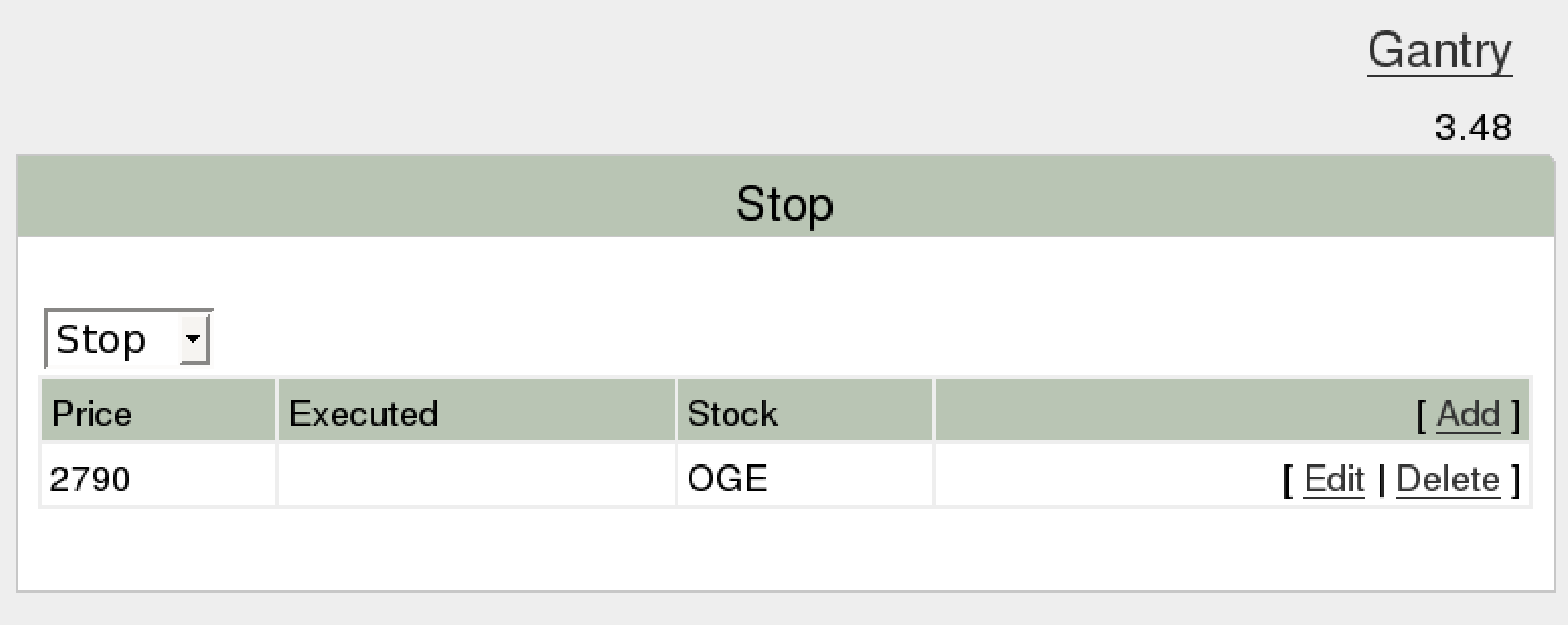

Gantry

3.48

Stop

Stop

Price	Executed	Stock	[Add]
2790		OGE	[Edit | Delete]

Why Gantry?

Gantry Features:

- easy config with Gantry::Conf

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- regeneration (Bigtop again)

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Gantry Features:

- easy config with Gantry::Conf
- simple dispatching
- no magical code (except in your ORM)
- ease of starting (Bigtop generation)
- regeneration (Bigtop again)
- plays well with others

Find out More

- CPAN - get stable Gantry and Bigtop

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- usegantry.org - project home

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