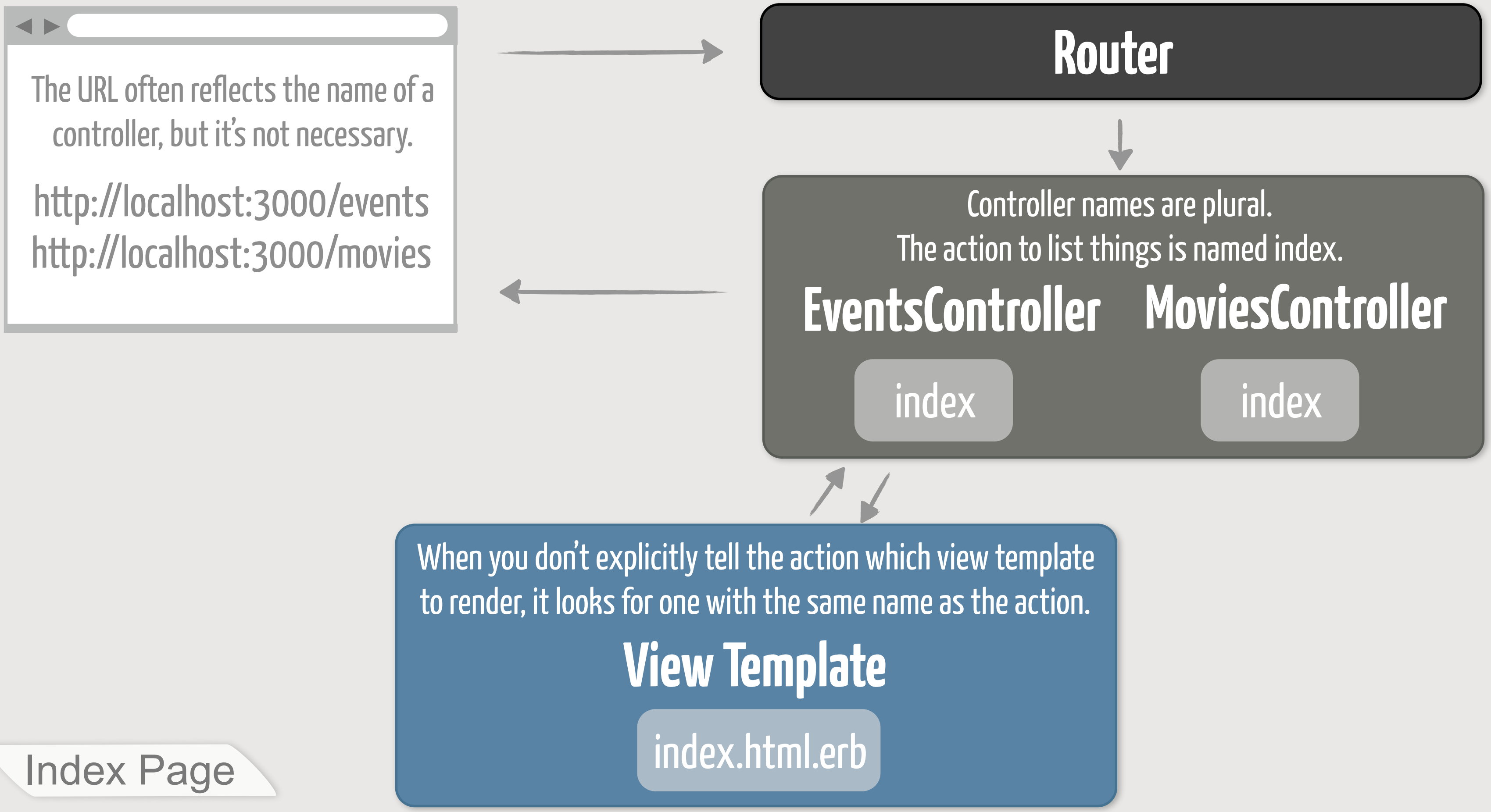
Rails Programming

CONVENTIONS

Index Page



The URL often reflects the name of a controller, but it's not necessary.

http://localhost:3000/events
http://localhost:3000/movies

Router

Controller names are plural.
The action to list things is named index.

EventsController

index

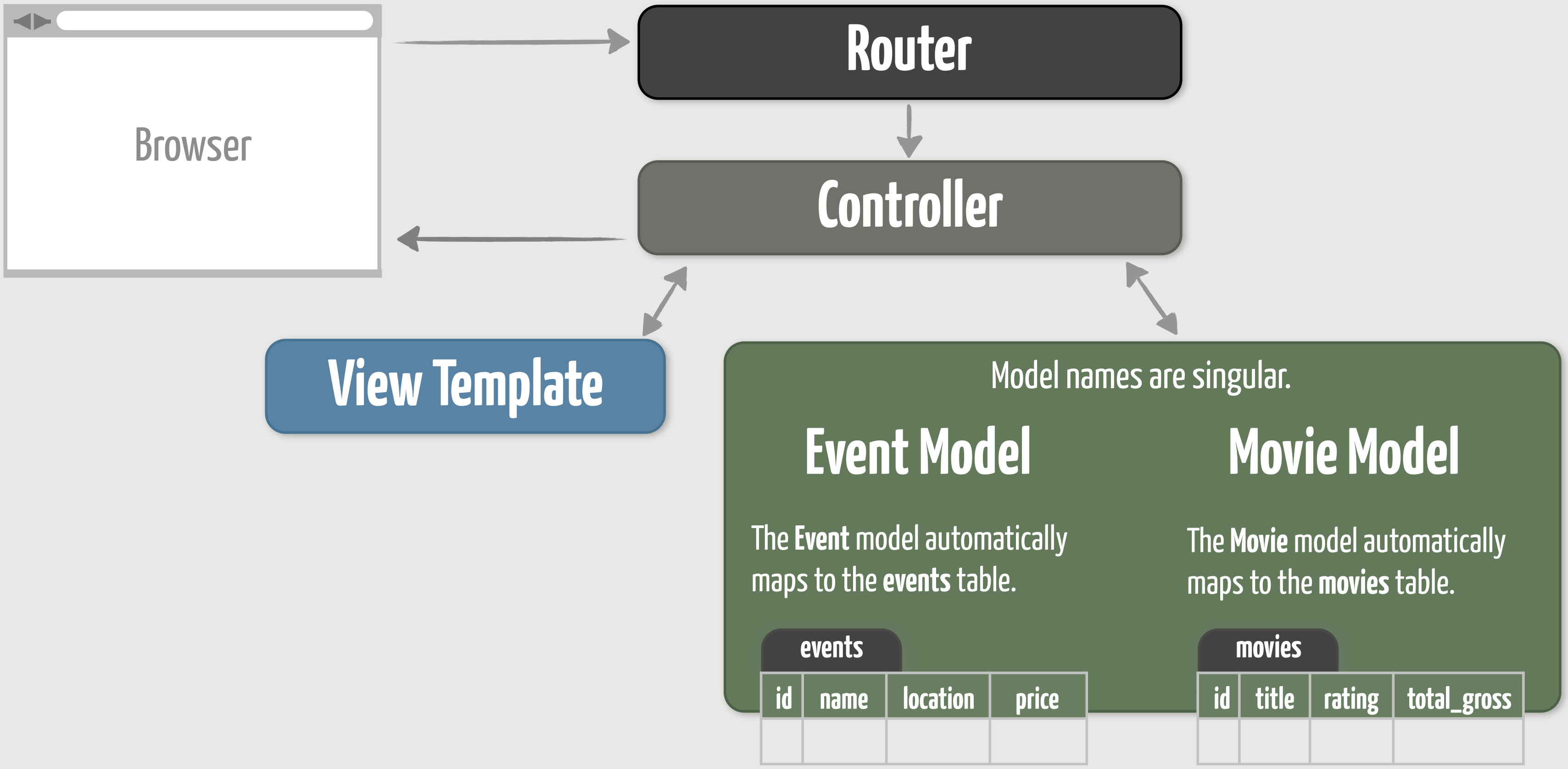
MoviesController

index

When you don't explicitly tell the action which view template to render, it looks for one with the same name as the action.

View Template

index.html.erb



Model names are singular.

The **Event** model automatically maps to the **events** table.

The **Movie** model automatically maps to the **movies** table.

events

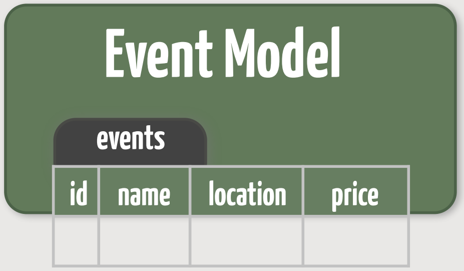
id	name	location	price

movies

id	title	rating	total_gross

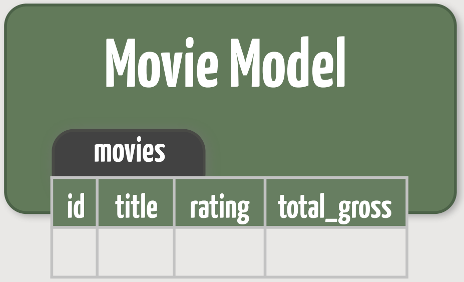
Database table names are plural.

Models



events

id	name	location	price



movies

id	title	rating	total_gross

Name your migration using the format **AddXXXToYYY**, and Rails will assume you want to add the listed column names and types to the YYY table. (The XXX part is arbitrary.)

```
rails g migration AddFieldsToEvents description:text starts_at:datetime
```

```
rails g migration AddFieldsToMovies description:text released_on:date
```

events

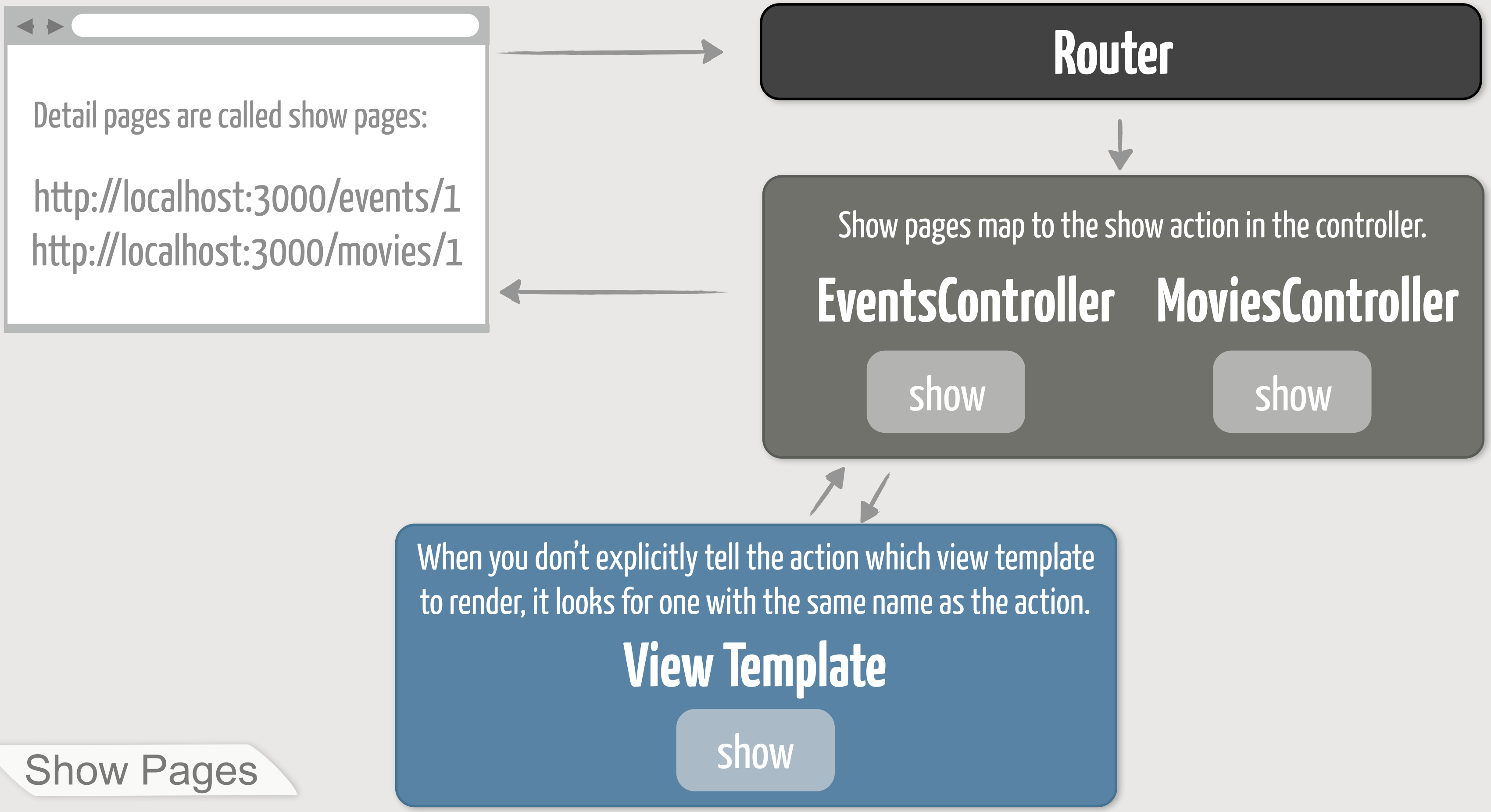
id	name	location	price	description	starts_at

movies

id	title	rating	total_gross	description	released_on

Migration Names

Show Pages



Detail pages are called show pages:

http://localhost:3000/events/1
http://localhost:3000/movies/1

Router

Show pages map to the show action in the controller.

EventsController

show

MoviesController

show

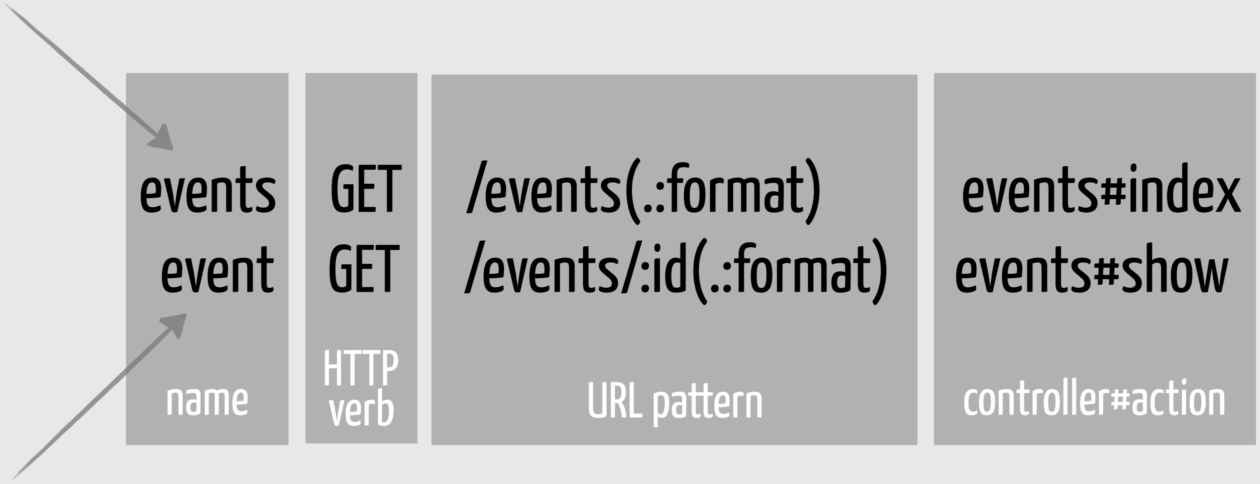
When you don’t explicitly tell the action which view template to render, it looks for one with the same name as the action.

View Template

show

Route Names

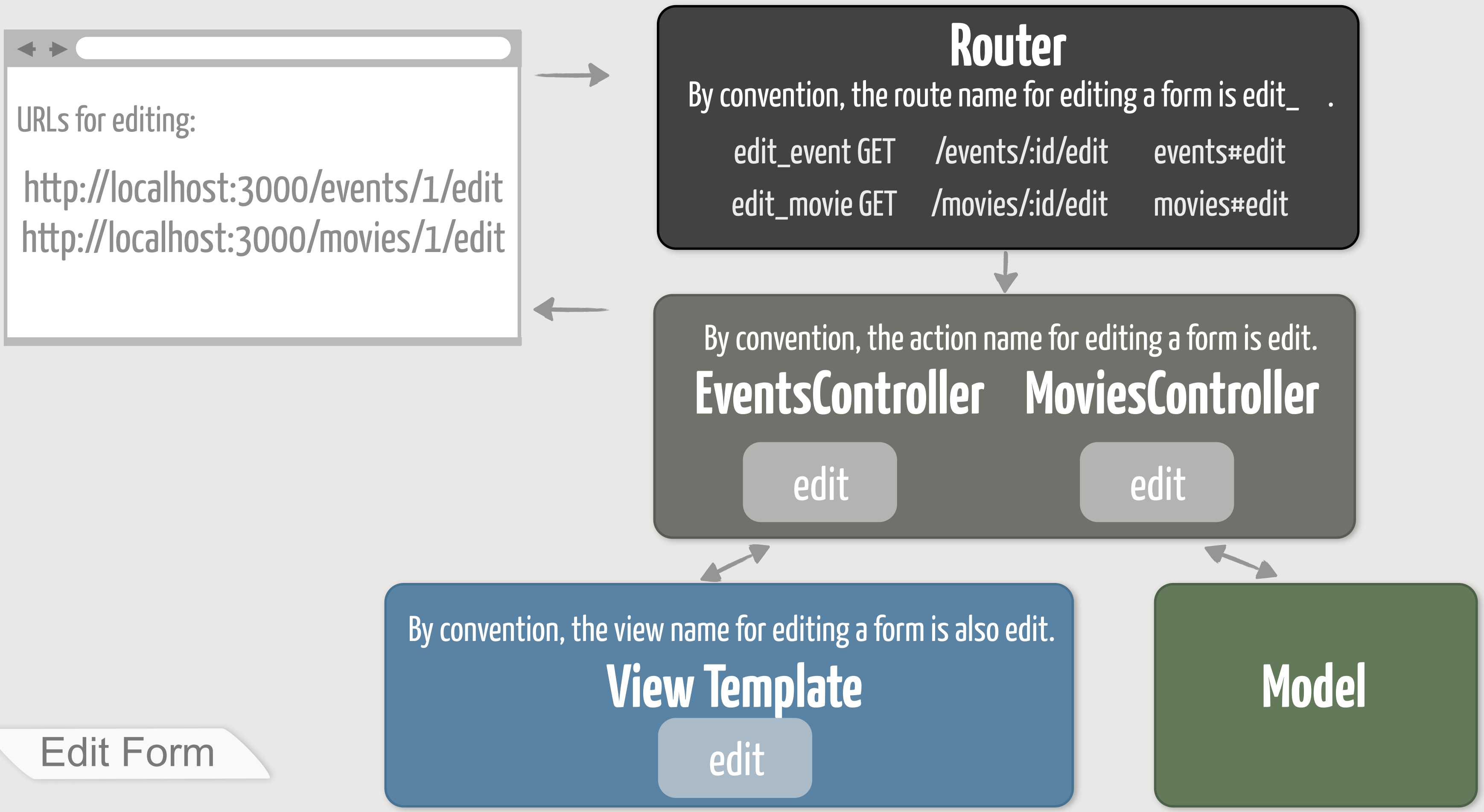
The name of the route that maps to the **index** action is **plural** because we're dealing with **multiple** things, such as multiple events or movies.



name	HTTP verb	URL pattern	controller#action
events	GET	/events(.:format)	events#index
event	GET	/events/:id(.:format)	events#show

The name of the route that maps to the **show** action is **singular** because we're dealing with **one** thing, such as one event or movie.

Edit Form



URLs for editing:

http://localhost:3000/events/1/edit
http://localhost:3000/movies/1/edit

Router

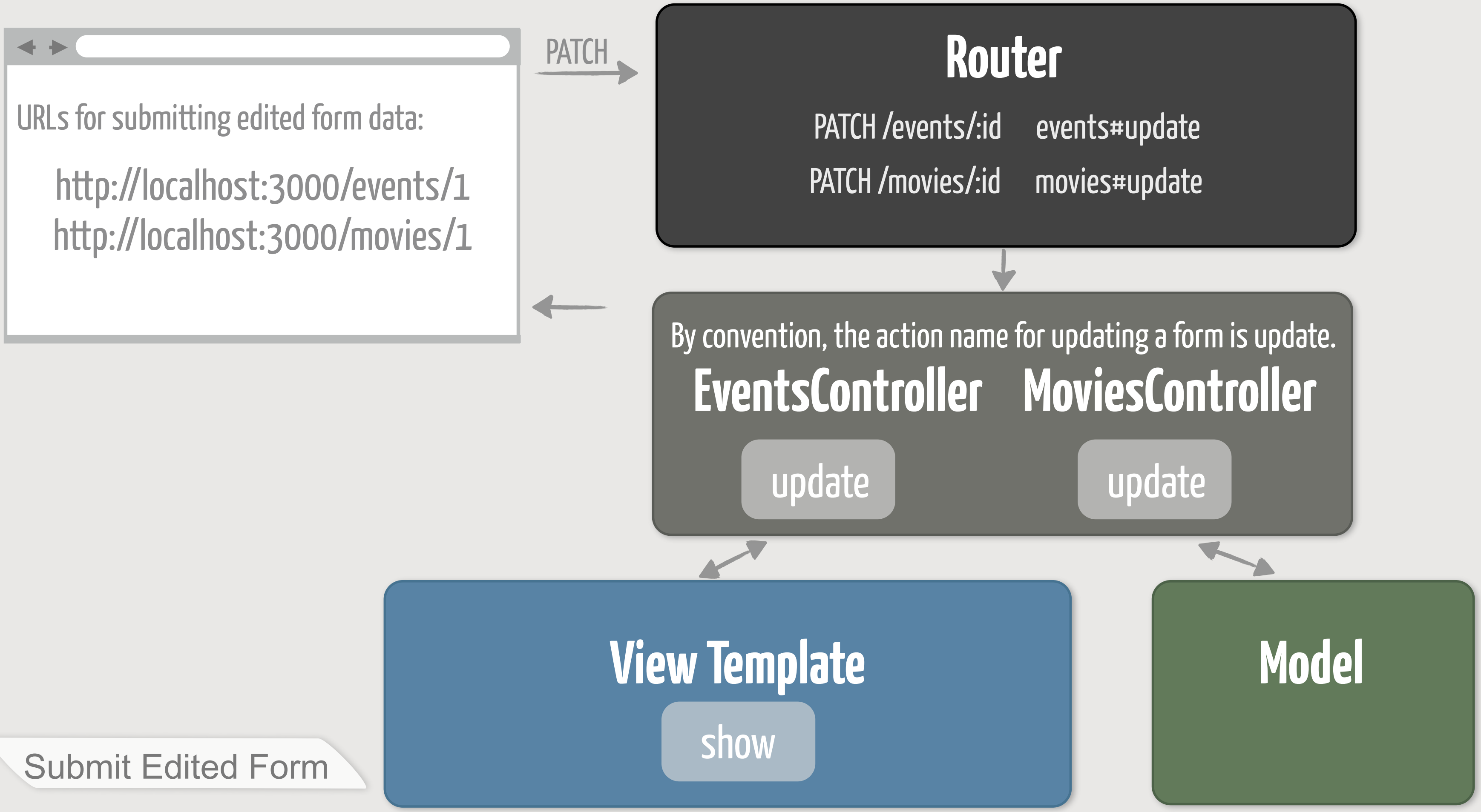
By convention, the route name for editing a form is edit_ .

edit_event	GET	/events/:id/edit	events#edit
edit_movie	GET	/movies/:id/edit	movies#edit

By convention, the action name for editing a form is edit.

By convention, the view name for editing a form is also edit.

Submit Edited Form



URLs for submitting edited form data:

http://localhost:3000/events/1
http://localhost:3000/movies/1

PATCH

Router

PATCH /events/:id	events#update
PATCH /movies/:id	movies#update

By convention, the action name for updating a form is update.

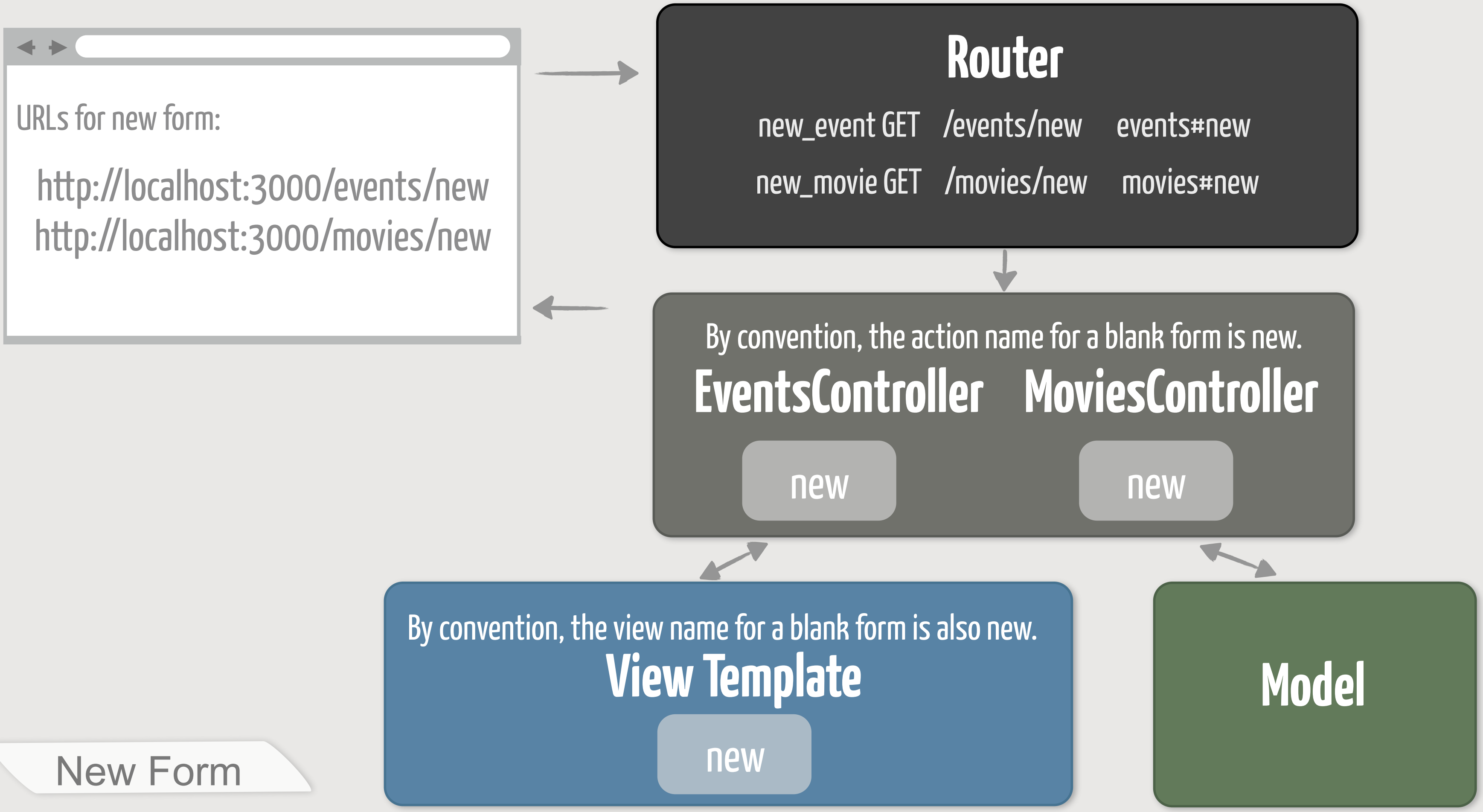
EventsController update

MoviesController update

View Template show

Model

New Form



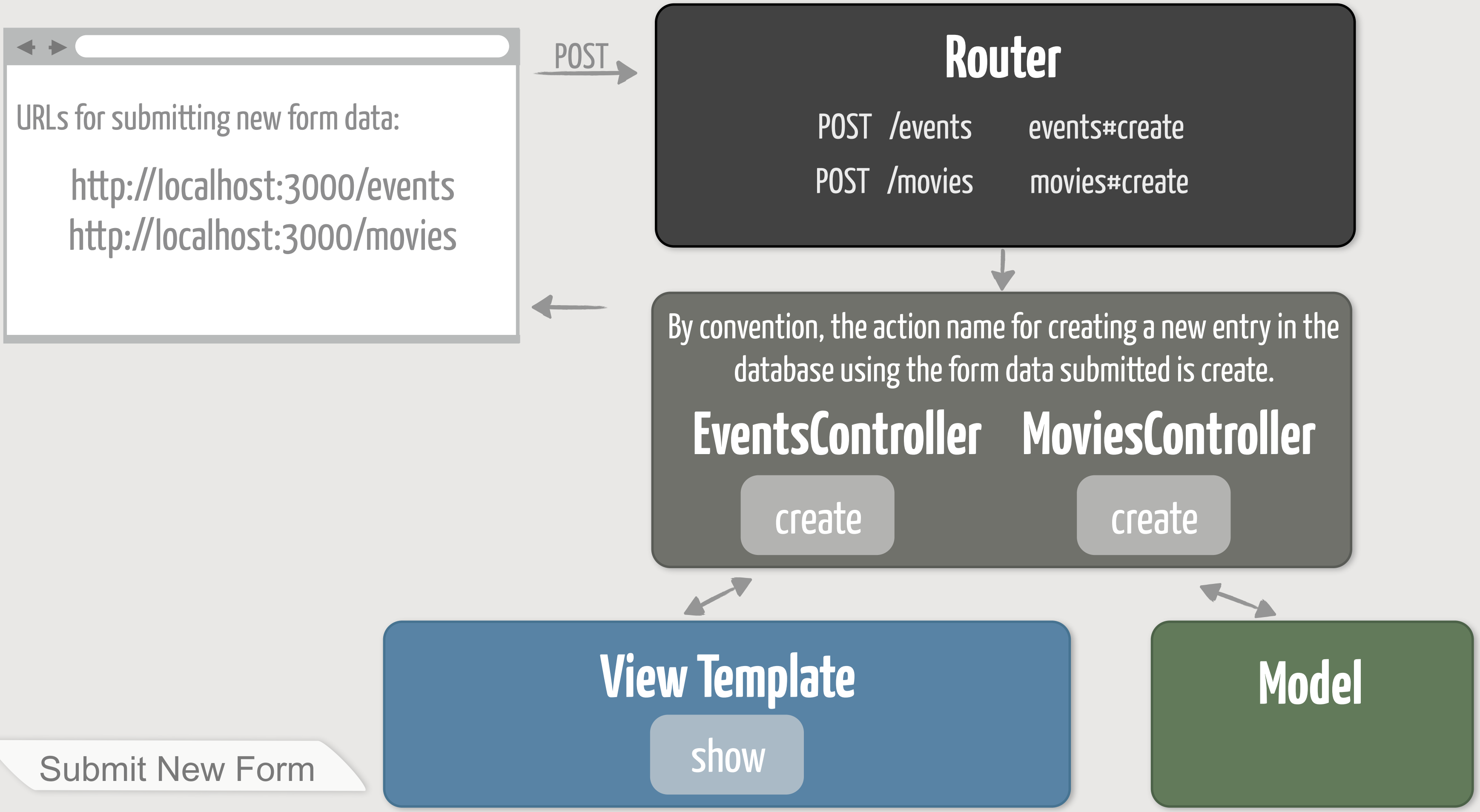
URLs for new form:

http://localhost:3000/events/new
http://localhost:3000/movies/new

new_event GET	/events/new	events#new
new_movie GET	/movies/new	movies#new

By convention, the action name for a blank form is new.

By convention, the view name for a blank form is also new.



URLs for submitting new form data:

http://localhost:3000/events
http://localhost:3000/movies

POST

Router

POST	/events	events#create
POST	/movies	movies#create

By convention, the action name for creating a new entry in the database using the form data submitted is create.

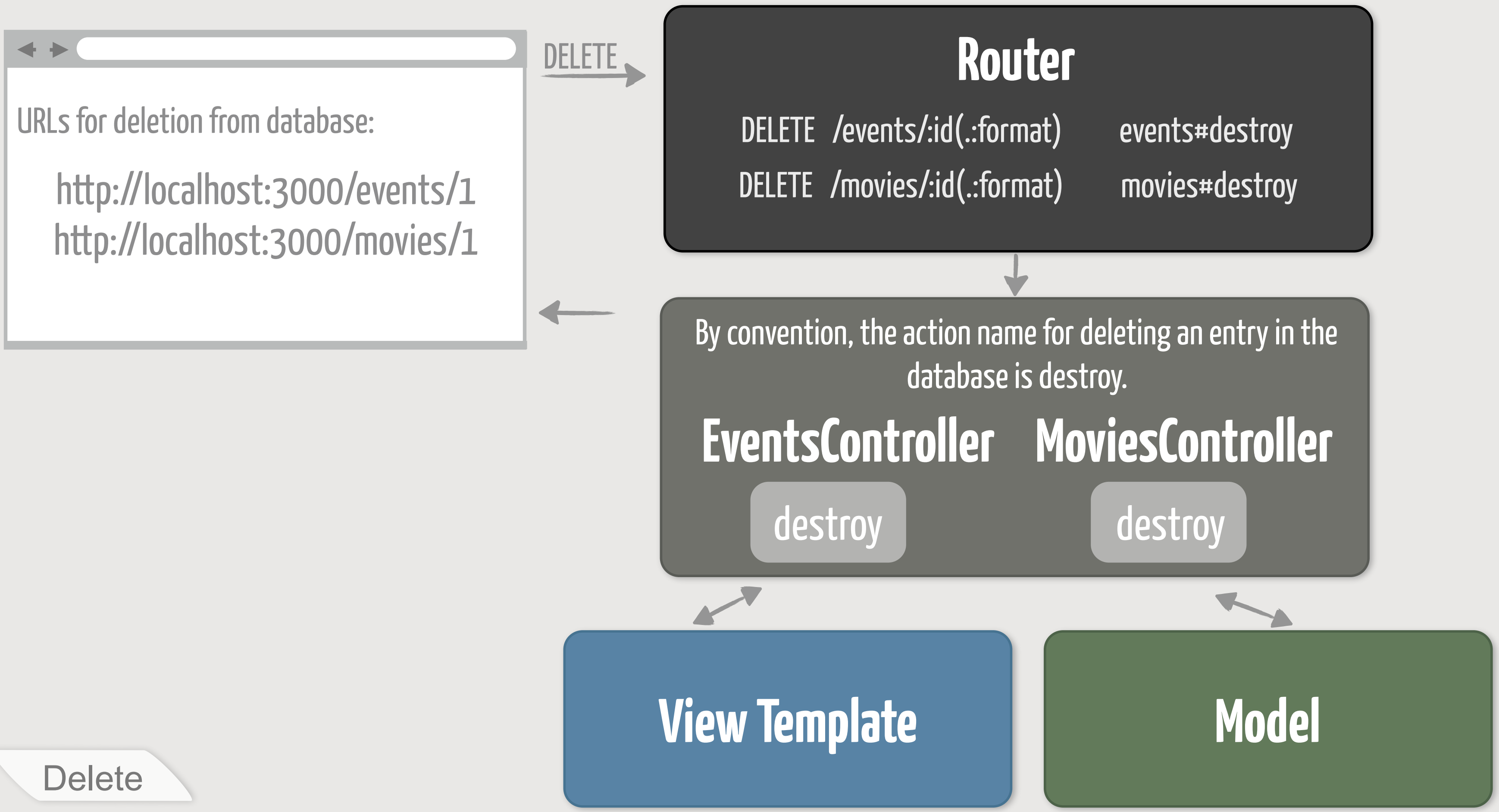
EventsController create

MoviesController create

View Template show

Model

Submit New Form



URLs for deletion from database:

http://localhost:3000/events/1
http://localhost:3000/movies/1

DELETE

Router

DELETE	/events/:id(.:format)	events#destroy
DELETE	/movies/:id(.:format)	movies#destroy

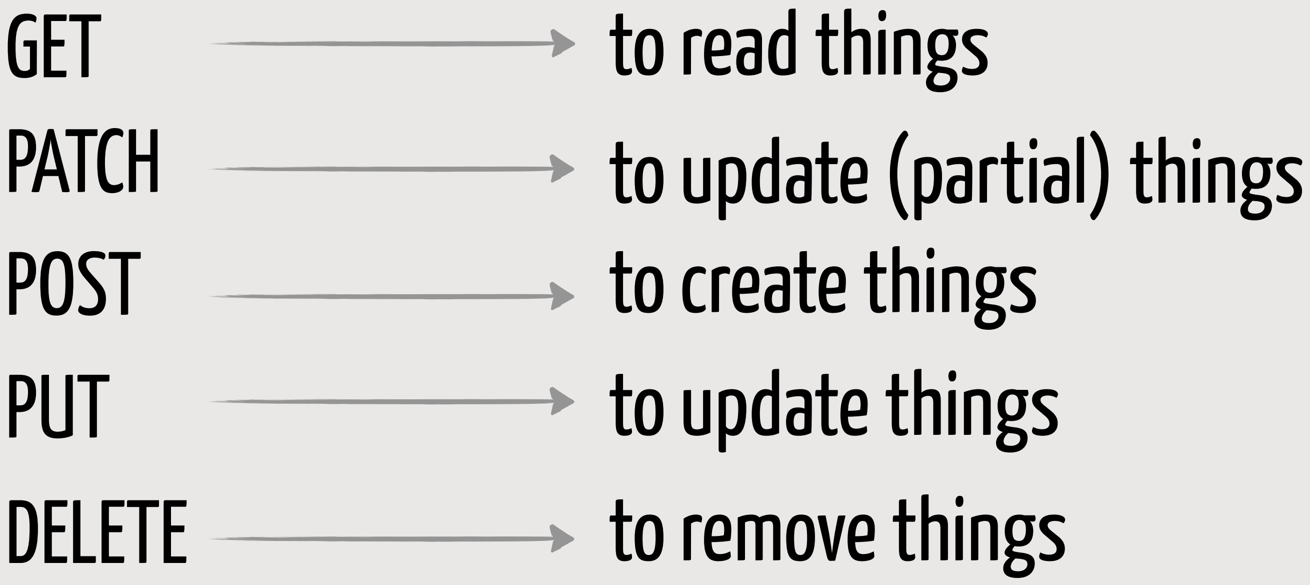
By convention, the action name for deleting an entry in the database is destroy.

Delete

resources :events

Name	HTTP Verb	URL Pattern	controller#action	
events	GET	/events	events#index	List All Events
event	GET	/events/:id	events#show	Show Specific Event
edit_event	GET	/events/:id/edit	events#edit	Show Edit Form
	PATCH	/events/:id	events#update	Update Event
	PUT	/events/:id	events#update	Update Event
	POST	/events	events#create	Create New Event
new_event	GET	/events/new	events#new	Show New Form
	DELETE	/events/:id	events#destroy	Delete Event

RESTful Conventions



GET → to read things

PATCH → to update (partial) things

POST → to create things

PUT → to update things

DELETE → to remove things

Named Route Methods

name	HTTP verb	URL pattern	controller#action
events	GET	/events	events#index
event	GET	/events/:id	events#show

Helper Method	Generates
events_url	http://www.example.com/events
events_path	/events
event_url(id)	http://www.example.com /events/1
event_path(id)	/events/1

The _**path** method generates a **relative path**.

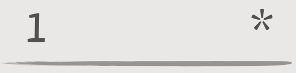
The _**url** method generates the **full URL**.

Event Model

```
class Event < ApplicationRecord
 has_many :registrations,
            :dependent => :destroy
end
```

events

id	name	location
1	BugSmash	Denver, CO
2	Hackathon	Austin, TX
3	Kata Camp	Dallas, TX



Registration Model

```
class Registration < ApplicationRecord
 belongs_to :event
end
```

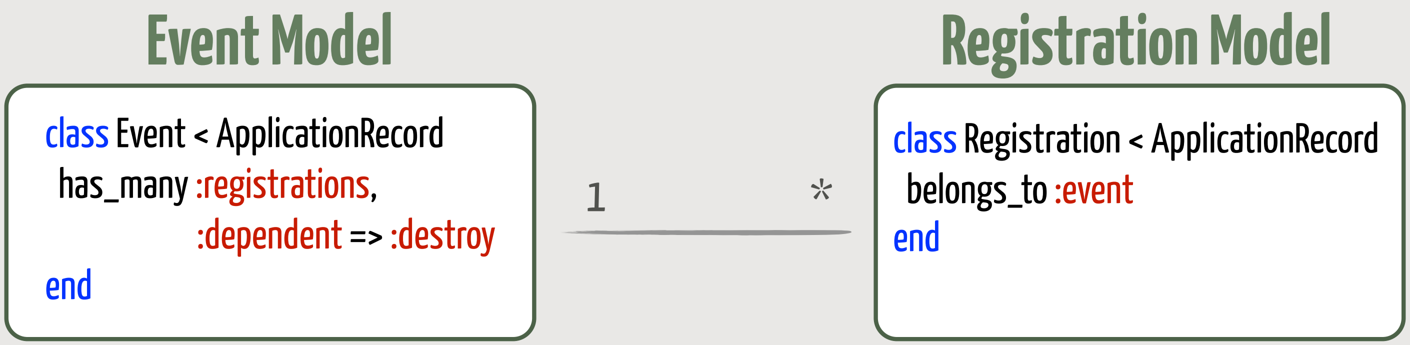
registrations

id	name	email	event_id
1	Larry	larry@stooges.com	1
2	Moe	moe@stooges.com	1
3	Moe	moe@stooges.com	3

The entity on the “many” (child) end needs a foreign key referencing the entity on the “one” (parent) end.

The name of this foreign key needs to be the name of the “one” (parent) entity, followed by “_id”.

One-to-Many



Event Model

```
class Event < ApplicationRecord
 has_many :registrations,
              :dependent => :destroy
end
```

Registration Model

```
class Registration < ApplicationRecord
 belongs_to :event
end
```

event.registrations

Returns an array of Registration objects that are associated with the event: all the registrations that have an event_id matching the event's ID.

registration.event

Returns the Event object associated with the registration: the event that matches the ID in the event_id column.

One-to-Many

Put as much **business logic** into the model as you can.

Event Model

```
def free?
  price.blank? || price.zero?
end

def spots_left
  capacity - registrations.count
end

def sold_out?
  spots_left.zero?
end
```

Movie Model

```
def flop?
  total_gross.blank? || total_gross < 50000000
end

def average_stars
  reviews.average(:stars)
end
```

Business Logic