In this lecture, we will discuss...

- ♦ Nested Resources
- ♦ What should go into the nested/dependent controller



Notes Resources

- ♦ We can scaffold a regular RESTful controller for notes as well, but...
- ♦ Note resource depends on the book resource
- ♦ In other words, when doing anything with the notes resources, we have to be talking about a specific book for it to be meaningful
- ♦ Rails calls such secondary resources "Nested Resources"



Empty (for now) Notes controller

```
~/sandbox/i_reviewed$ rails g controller notes
     create app/controllers/notes_controller.rb
     invoke erb
     create
              app/views/notes
     invoke test_unit
     create test/controllers/notes_controller_test.rb
     invoke helper
     create app/helpers/notes_helper.rb
     invoke test_unit
     invoke assets
     invoke coffee
     create
                app/assets/javascripts/notes.coffee
     invoke
              SCSS
                app/assets/stylesheets/notes.scss
     create
```

No actions specified during creation



config/routes.rb

Nest notes inside books!

Paths to notes resources will have book id in them...

```
routes.rb
Rails.application.routes.draw do
  resources :books do
    resources :notes
  end
  root to: "books#index"
end
```



Routes Available So Far - Books

HTTP Method	Named Routes	Parameters	Controller Action	Purpose
GET	books_path		index	List all
GET	book_path	ID	show	Show one
GET	new_book_path		new	Provide form to input new book
POST	books_path	Record hash	create	Create new record (in DB)
GET	edit_book_path	ID	edit	Provide form to edit book
PUT/PATCH	book_path	ID and Record hash	update	Update record (in DB)
DELETE	book_path	ID	destroy	Remove record



Routes Available So Far - Notes

HTTP Method	Named Routes	Parameters	Controller Action	Purpose
GET	book_notes_path	Book ID	index	List all
GET	book_note_path	Book ID, Note ID	show	Show one
GET	new_book_note_path	Book ID	new	Provide form to input new note
POST	book_notes_path	Book ID, Record hash	create	Create new record (in DB)
GET	edit_book_note_path	Book ID, Note ID	edit	Provide form to edit note
PUT/ PATCH	book_note_path	Book ID, Note ID and Record hash	update	Update record (in DB)
DELETE	book_note_path	Book ID, Note ID	destroy	Remove record



Rake Routes Is Your Friend

```
~/sandbox/i_reviewed$ rake routes
        Prefix Verb
                     URI Pattern
                                                               Controller#Action
   book_notes GET
                     /books/:book_id/notes(.:format)
                                                               notes#index
               POST
                     /books/:book_id/notes(.:format)
                                                               notes#create
 new_book_note GET
                      /books/:book_id/notes/new(.:format)
                                                               notes#new
edit_book_note GET
                      /books/:book_id/notes/:id/edit(.:format) notes#edit
     book_note GET
                      /books/:book_id/notes/:id(.:format)
                                                               notes#show
              PATCH /books/:book_id/notes/:id(.:format)
                                                               notes#update
              PUT
                      /books/:book_id/notes/:id(.:format)
                                                               notes#update
              DELETE /books/:book_id/notes/:id(.:format)
                                                               notes#destroy
        books GET
                      /books(.:format)
                                                               books#index
               POST
                     /books(.:format)
                                                               books#create
     new_book GET
                     /books/new(.:format)
                                                               books#new
     edit_book GET
                     /books/:id/edit(.:format)
                                                               books#edit
          book GET
                     /books/:id(.:format)
                                                               books#show
              PATCH /books/:id(.:format)
                                                               books#update
                      /books/:id(.:format)
                                                               books#update
              PUT
              DELETE /books/:id(.:format)
                                                               books#destroy
          root GET
                                                               books#index
```



What Actions Do We Need For Notes?

- ♦ Notes will be shown inline on the book show page (books/show.html.erb), so we probably don't need all seven actions in the notes controller
- ♦ The form for creating a note (usually provided by the new action) will be provided on the "book show" page
- ♦ create and destroy actions is all we need



Restrict Note Routes

```
Rails.application.routes.draw do
resources :books do
resources :notes, only: [:create, :destroy]
end
root to: "books#index"
end
```

```
~/sandbox/i_reviewed$ rake routes
    Prefix Verb
                 URI Pattern
                                                    Controller#Action
book_notes POST /books/:book_id/notes(.:format)
                                                    notes#create
 book_note DELETE /books/:book_id/notes/:id(.:format) notes#destroy
     books GET /books(.:format)
                                                    books#index
          POST /books(.:format)
                                                    books#create
  new_book GET /books/new(.:format)
                                                    books#new
 edit_book GET
                 /books/:id/edit(.:format)
                                                    books#edit
     book GET /books/:id(.:format)
                                                    books#show
          PATCH /books/:id(.:format)
                                                    books#update
          PUT
                 /books/:id(.:format)
                                                    books#update
          DELETE /books/:id(.:format)
                                                    books#destroy
                                                    books#index
      root GET
```



Notes Controller Using before_action

```
class NotesController < ApplicationController</pre>
  before_action :set_book, only: [:create, :destroy]
  def create
    @note = @book.notes.new(note_params)
    if @note.save
      redirect_to @book, notice: "Note successfully added!"
    else
      redirect to @book, alert: "Unable to add note!"
    end
  end
  def destroy
    @note = @book.notes.find(params[:id])
    @note.destroy
    redirect_to @book, notice: "Note deleted!"
  end
  private
    def set book
      @book = Book.find(params[:book_id])
    end
    def note_params
      params.require(:note).permit(:title, :note)
end
```

Strong Parameters



Summary

- You will usually need just a subset of the seven actions for the nested controller
- ♦ Remember "Strong Parameters"

What's Next?

♦ Completing Nested Resources

