

# Rails, ReST & Resources

Routing in Rails

# Resources Routing?

Web request -> specific end-point  
within our application

# Rails Routing?

Web request -> specific end-point  
within our application

# Website Routing?

Web request -> specific end-point  
within our application

# Website Routing?

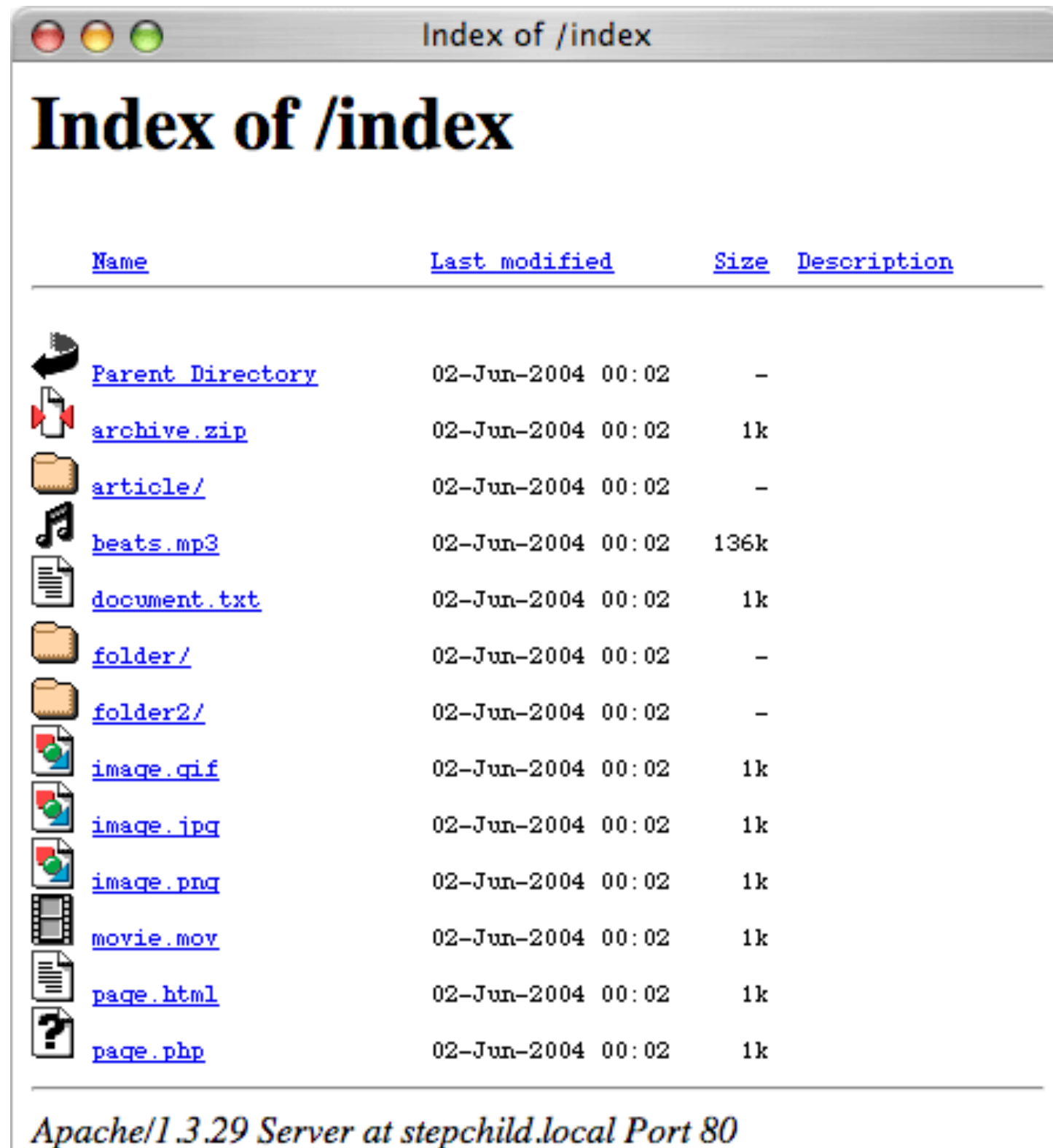
The image shows a screenshot of an NCSA Mosaic web browser window titled "AltaVista: Main Page - NCSA Mosaic". The browser's address bar displays "http://www.altavista.digital.com/". The main content area shows the AltaVista search interface with a search bar containing "RDF" and a "Submit" button. Below the search bar, there is a "Tip" section and various links like "Search", "Zones", "Services", "Help", and "Feedback".

Overlaid on the browser window is a terminal window titled "/Users/joshua/Projects/RailsMn/rails — RailsMn/rails — zsh — 964". The terminal shows a telnet session to "www.google.com" on port 80. The output of the telnet command is as follows:














```
+ telnet www.google.com 80
Trying 74.125.225.115...
Connected to www.google.com.
Escape character is '^['.
GET /
HTTP/1.0 200 OK
Date: Mon, 09 Sep 2013 20:30:20 GMT
Expires: -1
Cache-Control: private, max-age=0
Content-Type: text/html; charset=ISO-8859-1
Set-Cookie: PREF=ID=13be6b6fa75ea687:FF=0:TM=1378758619:LM=1378758620:S=YXSvSALPHbXz
UHMD; expires=Wed, 09-Sep-2015 20:30:20 GMT; path=/; domain=.google.com
Set-Cookie: NID=67=dElANX9NGW_AwsJlnbZtESI5RavjFlsl7fUBwc8HsLJqzIr1DtURR0gErumbo2gAI
1ZDKQGF8DRQLwyPzBxhSXoY_tSrXww1FUQMFnIcOfEvUUMgVsG-tRuEyqj1JzB1; expires=Tue, 11-Mar
-2014 20:30:20 GMT; path=/; domain=.google.com; HttpOnly
P3P: CP="This is not a P3P policy! See http://www.google.com/support/accounts/bin/an
swer.py?hl=en&answer=151657 for more info."
Server: gws
X-XSS-Protection: 1; mode=block
X-Frame-Options: SAMEORIGIN
Alternate-Protocol: 80:quic

<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage"><head><meta c
ontent="Search the world's information, including webpages, images, videos and more.
Google has many special features to help you find exactly what you're looking for."
name="description"><meta content="noodp" name="robots"><meta itemprop="image" conte
nt="/images/google_favicon_128.png"><title>Google</title><script>(function(){
window.google={kEI:"2y8uUo7yM8-GyQG51YCYAQ",getEI:function(a){for(var b;a&&(!a.getAt
```

# Website Routing?



The screenshot shows a web browser window with the title 'Index of /index'. The main content is a directory listing table with columns for Name, Last modified, Size, and Description. The table lists various files and directories, each with a corresponding icon. At the bottom of the window, it says 'Apache/1.3.29 Server at stepchild.local Port 80'.

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 <a href="#">Parent Directory</a>	02-Jun-2004 00:02	-	
 <a href="#">archive.zip</a>	02-Jun-2004 00:02	1k	
 <a href="#">article/</a>	02-Jun-2004 00:02	-	
 <a href="#">beats.mp3</a>	02-Jun-2004 00:02	136k	
 <a href="#">document.txt</a>	02-Jun-2004 00:02	1k	
 <a href="#">folder/</a>	02-Jun-2004 00:02	-	
 <a href="#">folder2/</a>	02-Jun-2004 00:02	-	
 <a href="#">image.gif</a>	02-Jun-2004 00:02	1k	
 <a href="#">image.jpg</a>	02-Jun-2004 00:02	1k	
 <a href="#">image.png</a>	02-Jun-2004 00:02	1k	
 <a href="#">movie.mov</a>	02-Jun-2004 00:02	1k	
 <a href="#">page.html</a>	02-Jun-2004 00:02	1k	
 <a href="#">page.php</a>	02-Jun-2004 00:02	1k	

Apache/1.3.29 Server at stepchild.local Port 80

# Rails Routing (v1)

1. MVC

2. ???

3. PROFIT!

# Rails Routing (v1)

## Default Route:

`/:controller/:action/:id`

- `:action` is optional,  
defaults to “index”
- `id` is optional,  
will be `nil`
- Hierarchy: left > right



# Rails Routing (v1)

**Default Route:**

`/:controller/:action/:id`

**Examples:**

`/users`  $\Rightarrow$  `UserController #index`

`/users/login`  $\Rightarrow$  `UserController #login`

`/projects`  $\Rightarrow$  `ProjectsController #index`

`/projects/show/123`

$\Rightarrow$  `ProjectsController #show` `id: 123`

# Rails Routing (v1)

## Custom Routes:

Route, mapping + custom `_url` helper

# **Rails Routing (v2)**

# ReST

- **Roy Fielding**
- **PhD Thesis 2000**
- **HTML + HTTPD ... ???**
- **Web site:**

URLs => things

lists of things

forms for things

detailed descriptions of things

# Rails Routing (v2)

**No more default route!**

```
resources :things
```

**Custom routes:**

```
get 'path/to/thing'  
  => ThingsController#do_it
```

**Bonus – free \_url helpers!**

```
things_url, thing_url(:id), edit_thing_url(:id)
```

# Rails Routing (v2)

## Examples:

`/projects => ProjectsController #index`

*`#/projects/show/123`*

`/projects/123`

`=> ProjectsController #show id: 123`

# What's a resource?

## Examples:

`/users`  $\Rightarrow$  `UserController` `#index`

`/sessions/create` \*

$\Rightarrow$  `SessionsController` `#create`

*\* this is totally cheating!*

# Nested resource?

**Examples:**

`/projects/1/tasks/123`

`=> TasksController`

`#show`

`id: 123`

`project_id: 1`

*vs Rails 1:*

*/tasks/123?project\_id=1*