

Ruby On Rails

Dharmesh Raithatha



Chi sono?

- `dharmesh` = `Person.new`
- `dharmesh.nationality` = `"Inglese"`
- `dharmesh.email` = `"draithatha@gmail.com"`
- `dharmesh.companies` = `["BBC", "Creatures 2", "Laboratorio Open Source"]`
- `dharmesh.roles` = `["product manager", "agile", "programmer"]`
- `dharmesh.languages` = `[c++,c#,java,ruby]`
- `puts dharmesh.likes` = `"ruby and rails"`



Cos'è Ruby on Rails?



Web Application Framework

Web Application Template

Java – PHP - Smalltalk

MVC Framework ma più
veloce...

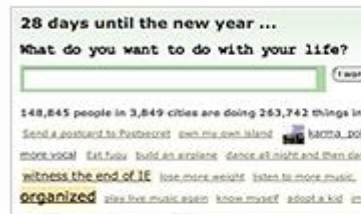
Examples



[Basecamp](#): Project management. The original Rails app by 37signals.



[Backpack](#): Intranet is back. The original Ajax for Rails app.



[43things](#): Achieve your goals in life.



[Lighthouse](#): Simple bug tracking.



[Shopify](#): E-commerce made easy.



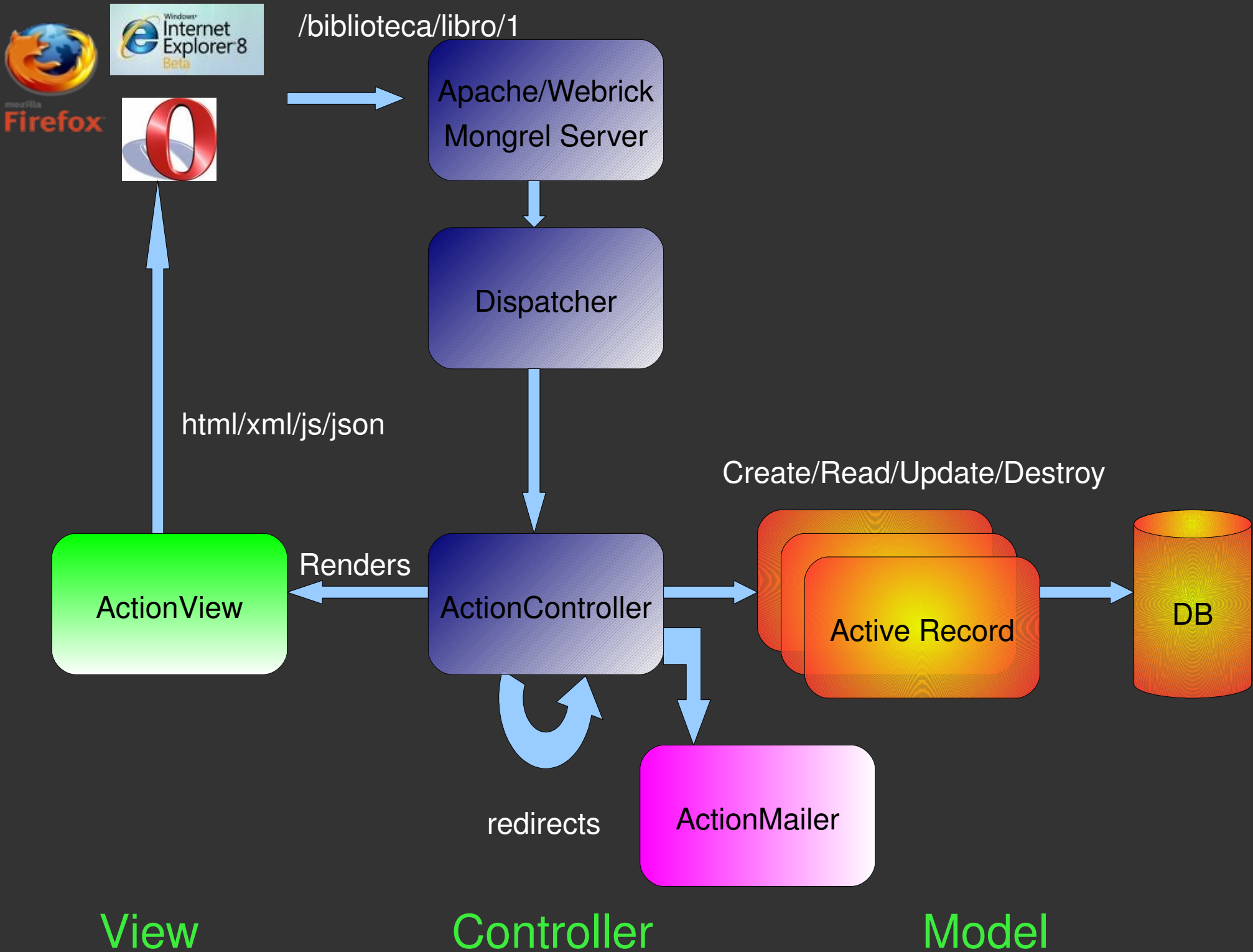
[Yellow Pages](#): Find it locally.



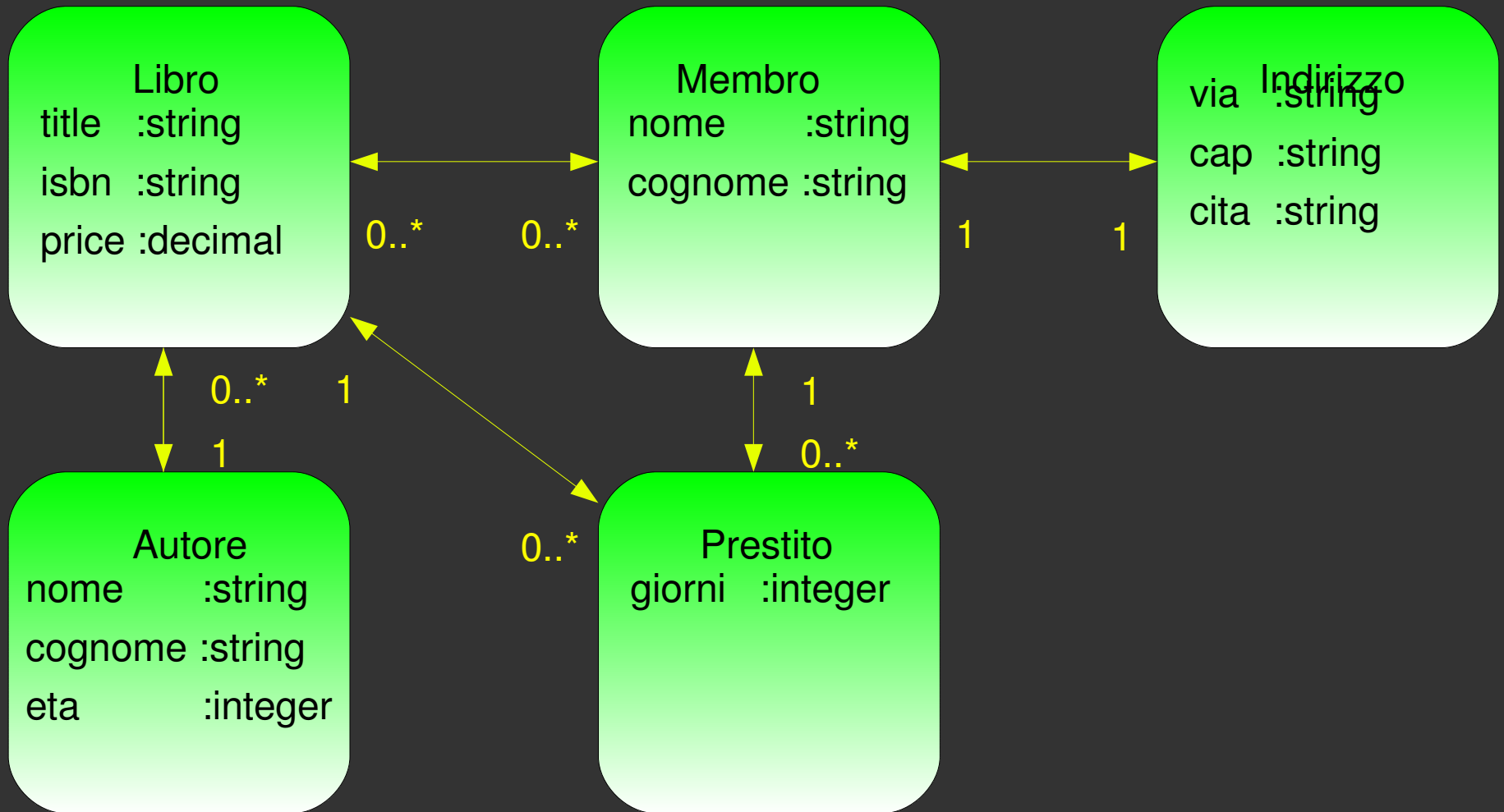
[Github](#): Git repo hosting.



[Twitter](#): Stay connected.



Un Esempio Progetto



UML Class Diagram Biblioteca

UN NUOVO PROGETTO CON RAILS

rails biblioteca

Convention
Over
Configuration

Controllers

Models

Views

Configuration

Public

Migrations

Libs

Vendor

Logs

Tests

DON'T REPEAT YOURSELF!

NON RIPETITI!

Ruby in 2 ore

Everything is an object
Elegant blocks of inline joy
Exploring with reflection
Extending at Runtime
Extensive Standard Library

Tipi

- `int = 10`
- `str = "this is a string"`
- `arr = ["labos", 10, int]`
- `hash = { "cane" => "woof", "gatto" => "miaow" }`
- `sym = :symbol`
- `rails_hash = { :cane => "woof", :gatto => "miaow" }`
-
- Tutti sono oggetti!

Control flow

- `if (1 == 2)`
- `puts "wrong"`
- `else`
- `puts "right"`
- `end`
- `for x in xs`
- `puts x.to_s`
- `end`
- `xs.each {|x| puts x.to_s}`

Yield and Code blocks

- `def do_something`
- `puts "in do_something"`
- `ret = yield("miaow")`
- `puts ret.to_s`
- `end`
-
- `irb >>`

Methods

- `def arguments(name, options = {})`
- `puts name`
- `options.each_pair { |key,value| puts key.to_s; puts value }`
- `end`
-
- `arguments("dharmesh", {:key => "value"})`
- Arguments `"dharmesh"`, `:key => "value"`
- `has_many :libri, :default => "hello", :include => "membri"`
-

Classes

- `class LibriController < ApplicationController`
- `layout "main"`
- `def index`
- `@libri = Libro.find(:all, :include => :autore)`
- `respond_to do |format|`
- `format.html # index.html.erb`
- `format.xml { render :xml => @libri }`
- `end`
- `self.find(number,options ={})`
- `end`
- `protected :index`
- `end`
- `lib`

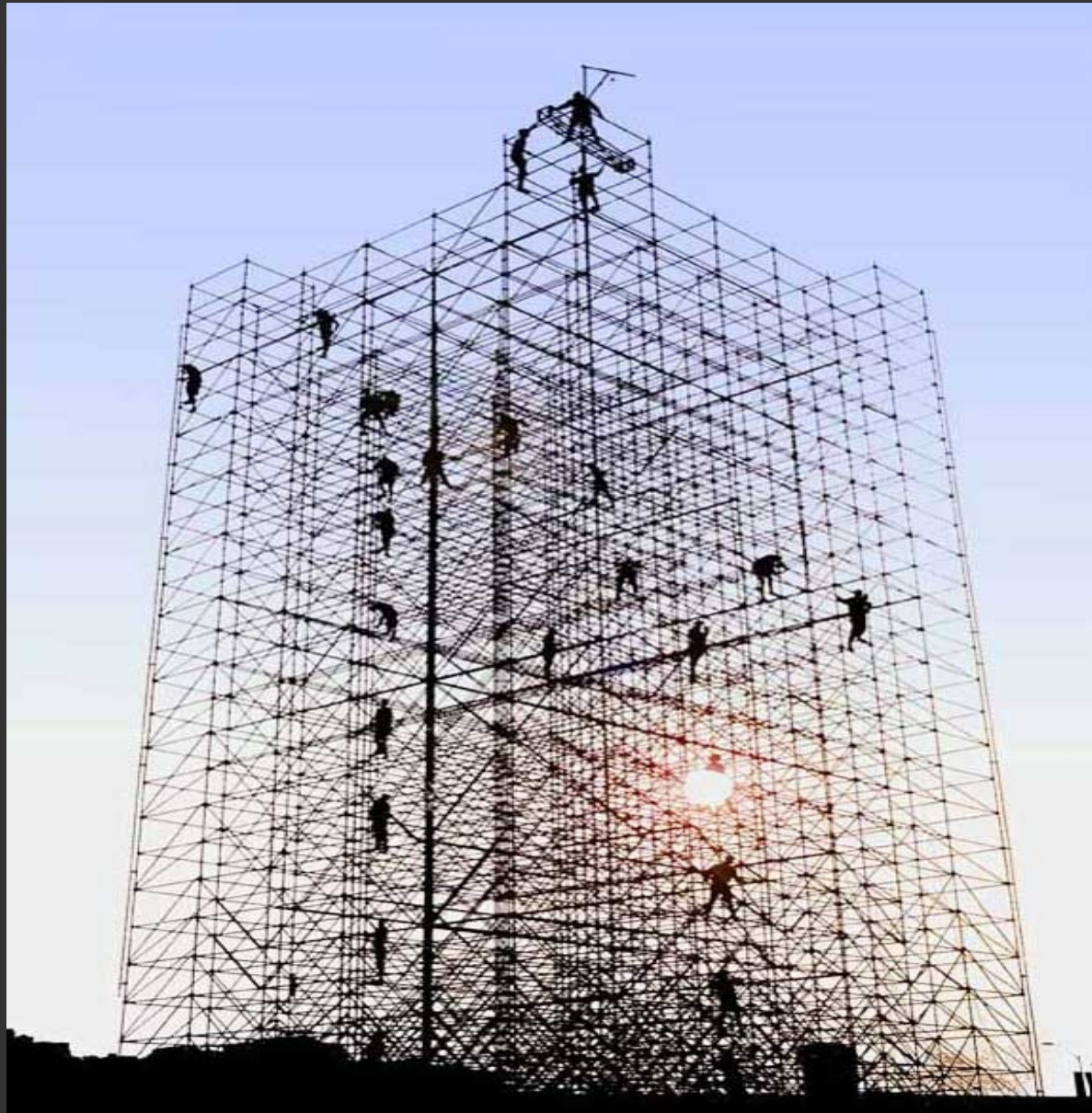
Modules

- `module LibriHelper`
 - `def link_to_libro`
 - `@hrefs = { :home => "http://labos.diee.unica.it" }`
 - `end`
- `end`
-
- `include LibriHelper`
-

-
- # Reflection and Metaprogramming

- `a = A.new`
- `puts a.class`
- `puts a.methods`
- `method = a.method("methods")`
- `method.call`
- `a.send("methods")`
- `def a.fly`
- `puts "fly"`
- `end`

Scaffold



Resources and Mapping

POST	/libri/create
GET	/libri/show/1
POST	/libri/update/1
POST	/libri/destroy/1
GET	/libri/index
GET	/libri/new
GET	/libri/edit/1

HTTP

CRUD

POST

create

GET

read

PUT

update

DELETE

destroy

Convention
Over
Configuration

HTTP	Libro	Action
POST	/libri	create
GET	/libri/1	show
PUT	/libri/1	update
DELETE	/libri/1	destroy
GET	/libri	index
GET	/libri/new	new
GET	/libri/1/edit	edit

```
ActionController::Routing::Routes.draw do | map |  
  map.resources :libro  
  
end
```

Database Migrations

```
class CreateLibri < ActiveRecord::Migration
  def self.up
    create_table :libri do |t|
      t.string :titolo
      t.string :isbn
      t.decimal :prezzo
      t.references :autore
      t.timestamps
    end
  end

  def self.down
    drop_table :libri
  end
end
```

ActiveRecord

One Class

```
class Libro < ActiveRecord::Base  
  
end
```

One object

One Table

```
CreateTable libri (  
  'id' int 11 not null increment  
  'titolo' varchar(255)  
  'isbn' varchar(255)  
  'price' decimal  
  
  PRIMARY KEY (id)  
  
)
```

One Row

Find methods

- `Libro.find(:all)`
- `Libro.find(:first)`
- `Libro.find(1)`
- `Libro.find_by_titolo("ruby on rails")`
- `Libro.find(:all, :conditions => "titolo = 'ruby')`
- `Libro.find(:all, :include => :autore)`
- `Libro.find_by_sql("select * from libri")`

More finders

- `Libro.find(:all, :limit => 10, :offset => 20)`
- `Libro.find(:all, :order => "created_at Desc")`

Relationships

- `class` Libro < ActiveRecord::Base
- `has_many` :prestiti, :dependent => :destroy
- `has_one` :membro, :through => :prestiti
- `belongs_to` :autore
- `end`

Convention Over Configuration

```
class Libro < ActiveRecord::Base
  set_table_name "libri"
  set_primary_key "id"

  has_many :prestiti, :class_name => "Prestito", :foreign_key => "prestito_id"
  has_one :membro, :class_name => "Membro", :foreign_key => "membro_id"

  def title
    return @title
  end
end
class Libro < ActiveRecord::Base

  has_many :prestiti
  has_one :membro

end
```

Validations

- `class` Libro < ActiveRecord::Base
- `validates_presence_of` :titolo
- `validates_format_of` :isbn, :with => /[0-9\-a-zA-Z]{13}/
- `validates_numericality_of` :prezzo
 - `validates_length_of` :titolo, :within => 1..255
- `end`
-
- `irb > libro.valid?`
-

ActionController

- `class` LibriController < ApplicationController
- `layout "main"`
- `def` index
- `@libri = Libro.find(:all, :include => :autore)`
- `respond_to do |format|`
- `format.html # index.html.erb`
- `format.xml { render :xml => @libri }`
- `end`
- `end`

ActionView

- Irb > _

Plugins

- Restful_authentication
- Acts_as_taggable_on_steroids
- :Attachment_fu => polymorphic types
- Inheritance => :type
- Acts_as_tree
- YM4R
- Internationalisation

Links

- <http://www.rubyonrails.org/>
- <http://agilewebdevelopment.com/plugins>
- <http://jquery.com/>
- <http://www.pragprog.com/> - libri su Rails

GRAZIE!