Week 5

- ❖ **Model Queries**

- ❖ **Rails Migrations, Part 2**

- ❖ **Model Associations**

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Midterm Next Week

2nd half of class

Short-answer
Multiple choice / "All that apply"
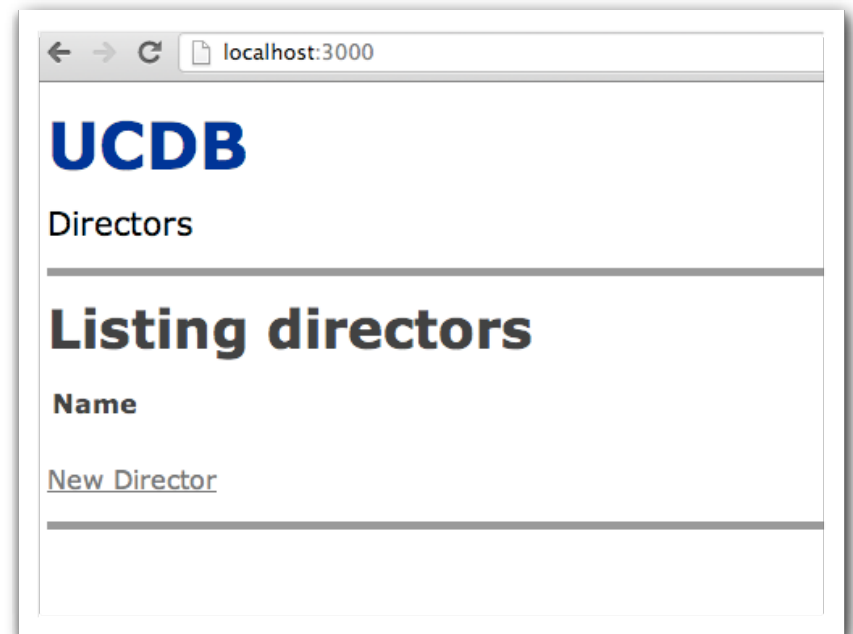**Code reading challenges**

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Clone Week5

cd ~/dev/uc
git clone git://github.com/cspp52553/week5.git

cd week5/code/ucdb
bundle install
...etc...

open http://localhost:3000/

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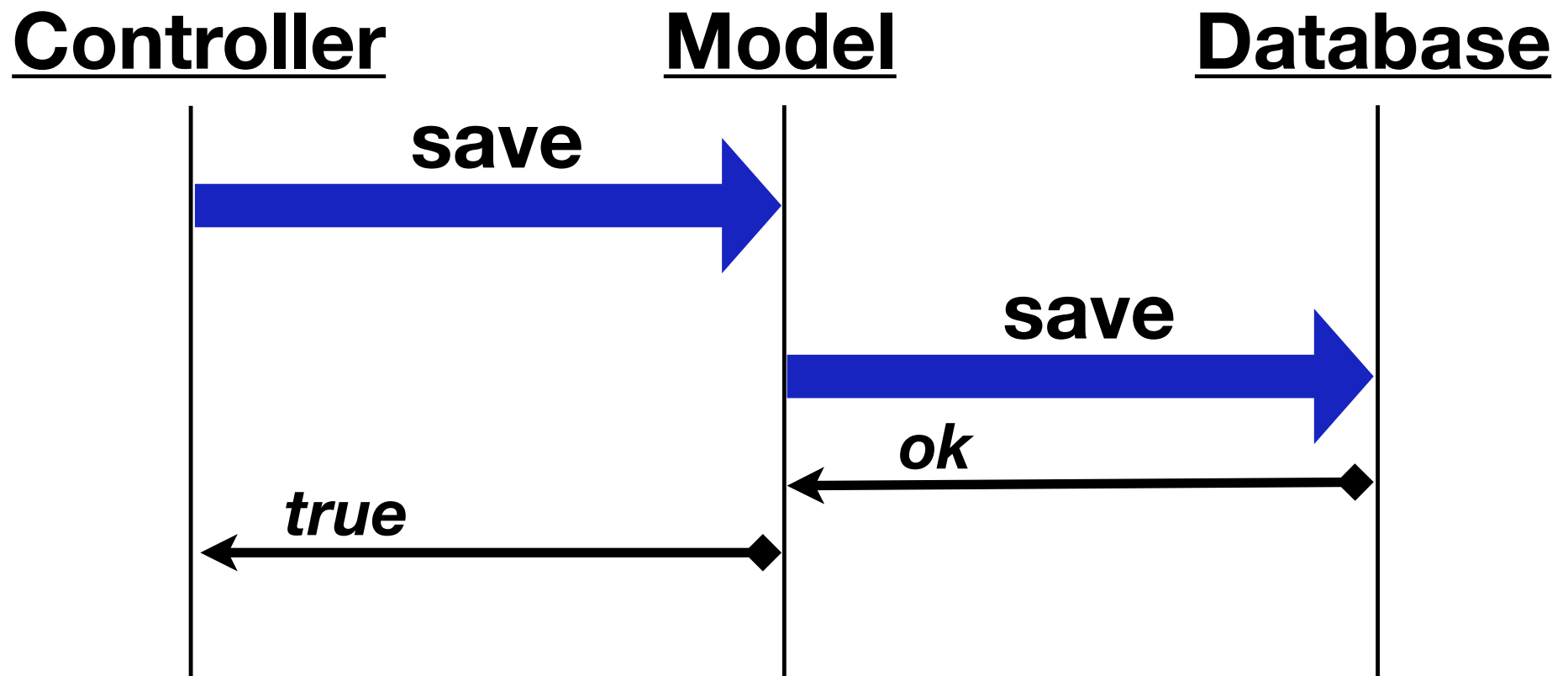
Model Validations

Model Validations

Important model methods to know:

.save

.valid?   *These trigger the validation rules*

.invalid?

.errors   *reports error messages after the rules have run*

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Model Validations

```ruby
class Director < ActiveRecord::Base

  validates_presence_of :name

end
```

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Layouts

Layouts provide reusable markup to surround every page on the entire site, every page for a specific controller, or around a given partial.

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Model Queries, Part 1

```
Model.order("column dir")
```

dir must be **asc** or **desc**

```
teams = Team.order("city asc")
```

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Model Queries, Part 1

```
Model.where(:column => value)
```

The `where` method expects a hash and returns a `relation` object.

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Model Queries, Part 1

```
Model.where(:column => value)


losers = Team.where(:city => "Chicago")

my_team = Team.where(:id => 4).first
```

Model Queries, Part 1

```
Model.count

or

relation.count
```

```
Team.count    # => 6

Team.where("city" => "Chicago").count # => 2
```
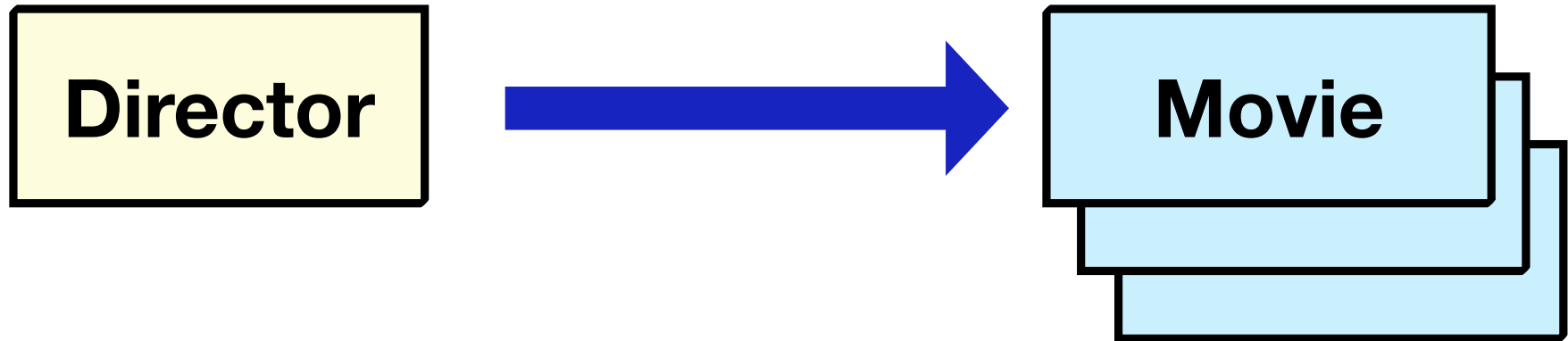
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Model Associations

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Model Associations

Director

Movie

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Model Associations

One-to-Many

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Model Associations

One-to-Many

directors	
id	**name**
1	Frank Darabont
2	Francis Ford Coppola
3	Christopher Nolan

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Model Associations

One-to-Many

directors	
id	**name**
1	Frank Darabont
2	Francis Ford Coppola
3	Christopher Nolan

movies		
id	**name**	**year**
88	The Godfather	1972
89	The Dark Knight	2008
90	The Shawshank Redemption	1994
91	The Godfather: Part II	1974

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Model Associations

One-to-Many

directors	
id	**name**
1	Frank Darabont
2	Francis Ford Coppola
3	Christopher Nolan

movies			
id	**name**	**year**	**director_id**
88	The Godfather	1972	2
89	The Dark Knight	2008	3
90	The Shawshank Redemption	1994	1
91	The Godfather: Part II	1974	2

Model Associations

How do we display the director of a given movie?

Director → **Movie**

directors	
id	**name**
1	Frank Darabont
2	Francis Ford Coppola
3	Christopher Nolan

movies			
id	**name**	**year**	**director_id**
88	The Godfather	1972	2
89	The Dark Knight	2008	3
90	The Shawshank Redemption	1994	1
91	The Godfather: Part II	1974	2

Model Associations

How do we display all of the movies by a given director?

Director → **Movie**

directors	
id	**name**
1	Frank Darabont
2	Francis Ford Coppola
3	Christopher Nolan

movies			
id	**name**	**year**	**director_id**
88	The Godfather	1972	2
89	The Dark Knight	2008	3
90	The Shawshank Redemption	1994	1
91	The Godfather: Part II	1974	2

Model Associations

belongs to


```
class Movie < ActiveRecord::Base

  belongs_to :director

end
```

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Model Associations

belongs to


```
class Movie < ActiveRecord::Base

  belongs_to :director

end
```

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Model Associations

has many

Director → Movie

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Model Associations

has many

| Director | → | Movie |

```ruby
class Director < ActiveRecord::Base

  has_many :movies

end
```

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Model Associations
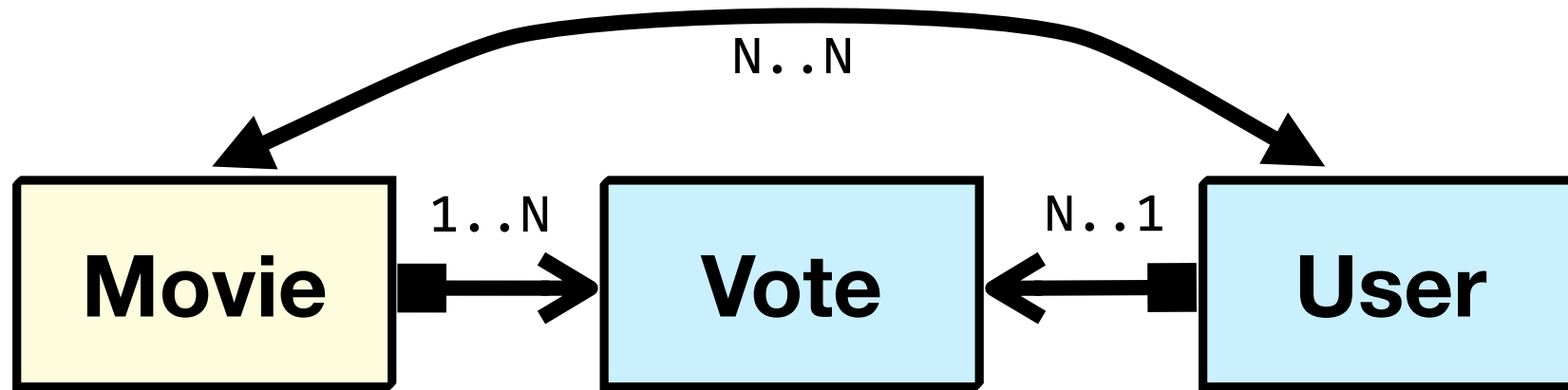
Movies and Users are a many-to-many association.

We use two 1-to-Many associations to travel across.

Now we can say that a movie....

has_many :users, :through => :votes

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