



BEWD – Associations

Week 7 / Lesson 1

Agenda

- Discovering Associations
 - Twitter Associations [Code-Along]
 - Netflix Associations [Exercise]
- Building Associations
 - Rewsly Associations [Code-Along]

Associations

- As the data we want to store in each table grows, sometimes we need more than just attributes
- For example, if we want to store the user who wrote a story, we could start by storing the `user_name` as an attribute on a story
- Then we'd add `user_email`, `user_nickname`, etc... and it would quickly get messy

Associations

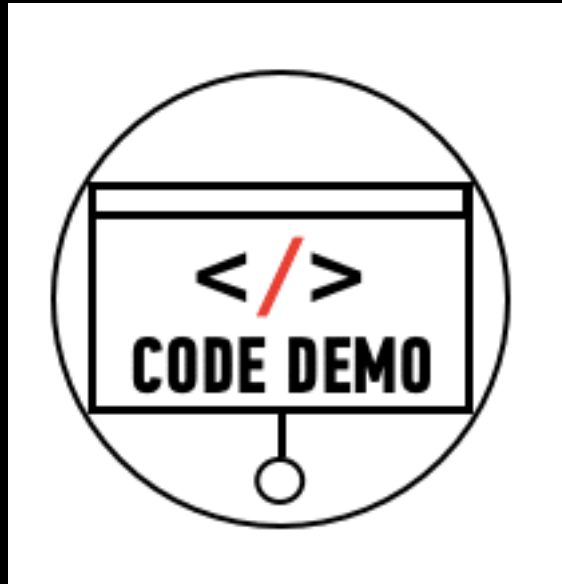
- Eventually we realize, we actually want to store user data in a users table
- Somehow, we'd need to link each story to its corresponding record in the users table
- This link is known as an association

Associations

Definition

- Model associations are how models interact with each other.
- Adding associations will help us know which user posted which story.
- With associations it's best to step away from the code and understand conceptually what is happening at a database level.
- In the database, two tables can be linked together using a foreign key.

Twitter Associations



Associations

Primary Keys

- A unique key (field) that can uniquely identify each row in a table.

Associations

Foreign Keys

- Definition: A foreign key is a column that is used to establish and enforce a link between data from two distinct tables.

Associations

Rails Active Record Associations

- belongs_to
- has_many
- has_many :through
- has_one
- has_one :through
- has_and_belongs_to_many

*We will cover the green associations.

Associations

User **has_many**
Tweets

Tweet **belongs_to**
User

User

ID	Handle	Name	Email
1	@GA	General Assembly	ga@generalassemb.ly
2	@justinbieber	Justin Bieber	jb@thebiebs.com
3	@techCofounder	Some Guy	someguy@yahoo.com

Tweet

ID	Content	user_id
1	Rails 4.0 is here: http://weblog.rubyonrails.org/2013/6/25/Rails-4-0-final/ ... #rubyonrails	1
2	"Success consists of going from failure to failure without loss of enthusiasm." - Winston Churchill	1
3	Great way to end it in Vegas. Denver your next. Just a quick 15 hour bus ride first. Damn! Lol. #tourlife #Believetour	2
4	Get off Twitter, get out in the world. Meet with three top VCs over coffee and get your mind buzzing: http://ga.co/gWV	1
5	got sent this from last night. pretty incredible you guys printed out all those signs for that moment. Thank u. pic.twitter.com/XdLSdLfWtB	2
6	Looking for a passionate #rubyonrails developer wishing cofound a new project, related to @Sinouts Follow and message me! Please RT!	3

- Primary Key
- Foreign Key

Associations

Tweet **has_many**
hash_tags **through**
hash_tagging

Tweet

ID	Content	user_id
1	Rails 4.0 is here: http://weblog.rubyonrails.org/2013/6/25/Rails-4-0-final/ ... #rubyonrails	1
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6	Looking for a passionate #rubyonrails developer wishing cofound a new project, related to @Sinouts_Follow and message me! Please RT!	3

Hashtag

ID	Hashtag
1	rubyonrails
2	tourlife
3	Believetour

Hash_tagging

ID	Hashtag_id	Tweet_id
1	1	1
2	2	3
3	3	3
4	1	6

the end.

Netflix Associations



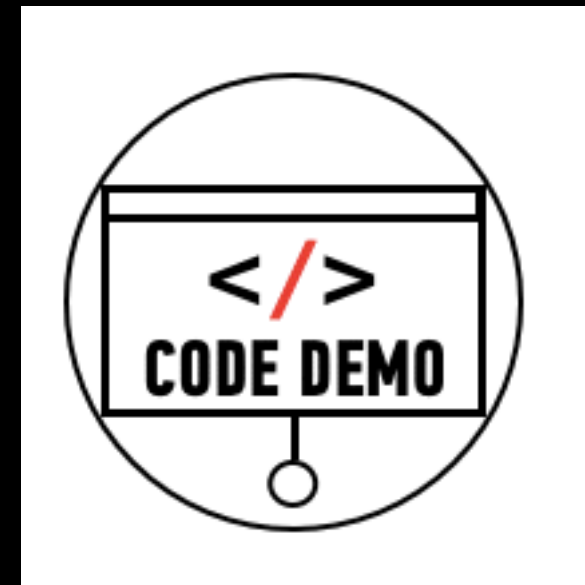
Associations

Coding Associations

- Now that we know how to identify associations, lets see how to add them in code.

Rewsly

- We need to add new features to Rewsly.
- Stories must be associated to users.
- Users can comment on stories.



Homework

Project Milestone:

- List all models needed for your final project.
- Draw a diagram to show how they will be associated.

Due lesson 15.

Resources

No cheat sheet this class. Remember, Google is your friend!

Tips, Tricks & Advanced Reading

- Implementing users and followers relationship
- Rails Naming Conventions
- What's The Difference Between has_one and belongs_to – Stack overflow
- Advanced Rails Forms and nested attributes – tutorial

<http://api.rubyonrails.org/classes/ActiveRecord/NestedAttributes/ClassMethods.html>

Still Feel Lost?

Catch Up With These Resources

- [Michael Hartl Chapter 10](#)
- [Associations Tutorial](#)
- [Rails Guides – Associations](#)
- [Differences in primary and foreign keys](#)