

Intro To Relational Databases

Summary

In this episode...

- Data persistence
- Relational Databases
- Tables
- Primary and foreign keys
- Schema



How can we save data in a web application?



Databases

To save (or persist) data, you need to somehow write the data to permanent storage, like the hard disk.



Databases

For a blogging platform, users have many posts and posts have tags and users may be following other users and so on.



Relational Databases / RDBMS/ Relational Database Management Systems

Relational databases were developed to provide a means of organizing data and their relationships, persisting that data and querying it.



USERS		
id	name	email
1	Sally	sally @ gmail.com
2	Jeff	jeff ø gmail.com
3	Matt	matt@hotmail.com
4	Sophie	pretty_girl@aol.com



		USERS	
id	name	email	
1	Sally	sally @ gmail.com	
2	Jeff	jeff @ gmail.com	
3	Matt	matt @ hotmail.com	
4	Sophie	pretty_girl@aol.com	

→ Row, Single entity



USERS			
id	name	er	nail
1	Sally	sa	lly @ gmail.com
2	Jeff	je	fagmail.com
3	Matt	m	att @ hotmail.com
4	Sophie	pr	etty_girl @ aol.com

Column, Attribute



USERS		
id	name	email
1	Sally	sally@gmail.com
2	Jeff	jeff @ gmail.com
3	Matt	matt@hotmail.com
4	Sophie	pretty_girl@aol.com

Primary Key, Identifier



Schema

USERS		
id	name email	
1	Sally	sally @ gmail.com
2	Jeff	jeff @ gmail.com
3	Matt	matt @ hotmail.com
4	Sophie	pretty_girl@aol.com

POST - TAG			
id	post_id	tag_id	
1	1	3	
2	3	2	
3	4	3	
4	1	1	

TAGS	
id	tag_name
1	music
2	awesomeness
3	facts
4	boring

POSTS			
id	user_id	post	
1	1	this is my first post!	
2	1	this is great	
3	3	I am Matt!	
4	2	I am not a pretty girl!	



Schema

USERS		
id name email		email
1	Sally	sally @ gmail.com
2	eff	jeff @ gmail.com
3	Matt	matt @ hotmail.com
4	Sophie	pretty_girl@aol.com

POST - TAG			
id	post_id	tag_id	
1	1	3	
2	3	2	
3	4	3	
4	1	1	

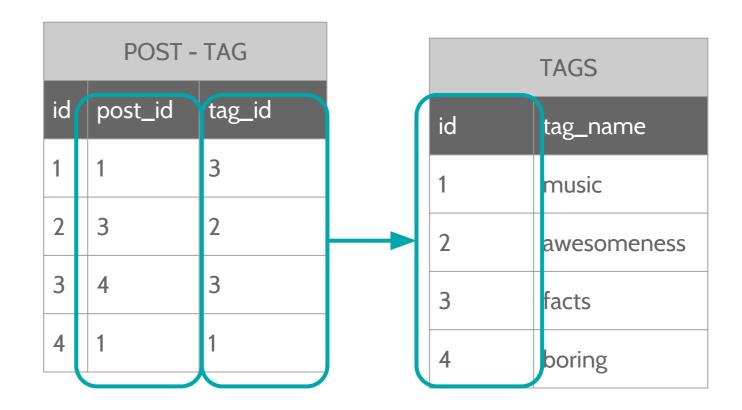
TAGS	
id	tag_name
1	music
2	awesomeness
3	facts
4	boring

POSTS		
id	user_id post	
1	1	this is my first post!
2	1	this is great
3	3	I am Matt!
4	2	I am not a pretty girl!



Schema

USERS		
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