**Introduction to ORMs**

Topics:

* Homework takeup
* ORMs

## Questions

### Question Set 1

1. What are the four main data manipulation (CRUD) SQL commands?

Select, insert, update, delete

1. Can you delete records from two tables at once? Or will that need to be two separate delete statements?

yes, set your table to on delete cascade.

### Question Set 2

1. What is a Primary Key?

mark one column in a table, used to reference with a foreign key. it is unique and will be indexed.

1. What data type are PKeys usually?
2. What other properties does/should a primary key typically have?

### Question Set 3

1. What is a Join and what is the main thing it needs in order to do its thing?

gets any 2 properties from a table, you use the primary and foreign key to index

1. What type of join is the default JOIN clause (if you don't specify the type)?

inner.

1. What is the difference between an INNER JOIN and an OUTER JOIN?

in a venn diagram of artist and albums the left circle would have artists with no albums that is the left outer join. the right outer would have albums with no artists?. right outer.

the inner join has indexes with artists and albums.

blog.codinghorrorcom/a-visual-explanation-of-sql-joins/

for test on friday – have to know basic joins, diff between outer inner, will also have to do some group bys – aggregates

probably just joining 2 tables together

3 questions – 1 super easy – 1 join question – 1 group by – and other ruby questions that we are doing today

Lecture

in terminal – we are using postgres today so install it

createdb w3d2lectureMar28

psql w3d2lectureMar28

in sql they are usually commands like .help .id etc.. its postgres its /h and /id etc.

require “pg” 🡪 gem – gives you a bunch of methods and lets you use ruby commands.

then first define a connection – specifying with the pg connect method which database we want to connect to.

conn = PG.connect(

host: ‘localhost’,

dbname: ‘w3d2lectureMar28’

)

(now running a query – pass it a block that will take in a results – they should always be an array – even if it’s a single result it will be in an array) 🡪 (an array of rows)

conn.exec(‘SELECT \* FROM countries;’) do |results|

results.each do |country|

p country

end

end

if we do ruby rawpg.rb (file above) in terminal. it returns hashes with keys and values but be careful because even though usually the keys are symbols, here the keys are strings the same as the values.

ORM 🡪 Object resource mappers. --- object ⬄ database data.

(notebook)

1. Active Record
2. Data Mapper