Lesson 6

Agenda

- Finish the route for items for a restaurant
- Understand and use the _id field
- Make the reviews collection
- Do some more complex Mongo queries
- Do an example relating to our restaurants

$push

The $push operator appends a specified value to an array.

{ $push: { <field1>: { <modifier1>: <value1>, ... }, ... } }

- Code POST and GET for
  - /restaurants/<res_name>/items

Primary Keys

A primary key is a unique identifier for an object in a database.

- MongoDB generates a primary key for you already in the “_id” field of a document.
- If two objects have the same name you can still treat them as unique if you only reference their ID
- These also give you lots of power connecting objects

Connecting 2 collections

- How do you create the association between objects in different collections?
- A restaurant might have many reviews that need to be displayed at the same time how would we go about taking a given restaurant and connecting it to all of its reviews in a different collection?

Complex Queries

- The power of databases (MongoDB or otherwise) is to allow you to
  - Query based on any arbitrary criteria
  - Make changes to complex documents

We can do more than just insert or find one document!

Set Up

- Make sure you have **mongod** running in a separate terminal
- Two sample datasets for us to play around with
- Go to the Github and find two files titled **ex1.json** and **ex2.json**
- Download them anywhere
- Open your terminal and **cd** into the folder you downloaded them in
- Run:

mongoimport --db=testdb --collection=persons ex1.json

mongoimport --db=testdb --collection=restaurants ex2.json

What does this do?

- We are importing two datasets
- The first dataset is going into a collection **persons** into database **testdb**
- The second dataset is going into a collection **restaurants** into the same database
- Open the files and see what's in them!
  - This will make it clearer about what's being imported

Users

- List all users where
  - Query 1: CS is one of their majors (array matching)
  - Query 2: They live on Busch (subdocument dot notation)
  - Query 3: Their graduation year is 2020 or earlier ($lte, $gte)
  - Query 4: Their name is Shashank, Dan, or Su Min - ($in)
- Update
  - Increment Alex's age by 1 ($inc)

Restaurants

- List all restaurants where
  - Query 1: They have Tacos on their menu (dot notation on nested subdocument array)
  - Query 2: They are in New Brunswick OR the name is Olive Garden ($or)
- Update
  - Update 1: For restaurants with name Tacoria, add a menu item called Horchata with price 4 ($push)
  - Update 2: Remove Yogurt from Honeygrow’s menu
  - Update 3: Change the location for Olive Garden