

# Coding Assignment # 4

---

1. The (unnamed) customer loved the API you produced in Assignment# 3, but he/she would like to be able to extend it to work for pretty much any operation on the student record in the “YAML-base”. So, he/she keeps on asking you for more silly features every time. Can you provide a query for student’s state? How about the age? How about the less than weight? You quickly get tired of the “Can you please just add one more feature?” game and think of a scheme that will “wow” the customer and make your API forward-compatible with the future attributes of the student record (as well as future silly customer requests). Your `DbApi` class (`db_api.rb`) will only have ONE method,

```
require_relative "student"
require_relative "course"
require "yaml"

class DbApi

  def self.method_missing (method, *args) ... end

end
```

which will

- a. Load the students into a class variable the first time around
- b. Parse out the last part of the “ghost” method being called and assume it to be an attribute of the student class
- c. Use the 2 arguments passed into the “ghost” method to perform the appropriate query
- d. The new `db_client2.rb` is provided as part of the homework (free of charge).

(**Hint:** You are basically combining “ghost” method technique with Dynamic Dispatch technique – both covered in the lecture.)

2. Implement a restful API client for <http://www.recipepuppy.com/about/api/> similar to the one we presented in class. It should have a class method `for`, which will take a keyword to search for and use a request parameter (`q`) to send the request up to the API. Also, specify a default parameter of `onlyImages` equal to 1 in order to only return results that contain associated thumbnails. (A sample is shown below.)

```
require 'httparty'

class Recipe
  ... end

  puts Recipe.for "chocolate"
  puts Recipe.for "apple pie"

  # ("title"=>"Tin and Tracy's Chocolate Cake (Boiled)", "href"=>"http://www.recipeaaz.com/Tin-and-Tracys-Chocolate-Cake-Boiled-259680", "ingredients"=>"baking soda, butter, cocoa powder, eggs, flour, sug
  # ("title"=>"Chocolate Chocolate Chocolate Butterscotch Chip Cookies Recipe", "href"=>"http://www.grouprecipes.com/50195/chocolate-chocolate-chocolate-butterscotch-chip-cookies.html", "ingredients"=>"coc
  # ("title"=>"Chocolate Cake With Fruits Recipe", "href"=>"http://www.grouprecipes.com/43318/chocolate-cake-with-fruits.html", "ingredients"=>"baking powder, baking soda, chocolate cake, eggs, frosting, v
  # ("title"=>"Chocolate Chip Cookies", "href"=>"http://www.recipeaaz.com/Chocolate-Chip-Cookies-146432", "ingredients"=>"flour, baking soda, chocolate, eggs, brown sugar, corn syrup, nuts, salt, semiswee
  # ("title"=>"Chocolate-Dipped Brownie Bites (Brownies)", "href"=>"http://www.recipeaaz.com/Chocolate-Dipped-Brownie-Bites-Brownies-264833", "ingredients"=>"flour, baking soda, butter, eggs, chocolate, s
  # ("title"=>"Darn Good Chocolate Cake ( Cake Mix Cake)", "href"=>"http://www.recipeaaz.com/Darn-Good-Chocolate-Cake-Cake-Mix-Cake-87205", "ingredients"=>"frosting, cake mix, eggs, chocolate pudding, son
  # ("title"=>"Angelina's Hot Chocolate", "href"=>"http://www.recipeaaz.com/Angelinas-Hot-Chocolate-334398", "ingredients"=>"chocolate, water, milk, sugar, water, whipped cream", "thumbnail"=>"http://img
  # ("title"=>"Chocolate Chip Oaties (Cookies)", "href"=>"http://www.recipeaaz.com/Chocolate-Chip-Oaties-Cookies-212253", "ingredients"=>"flour, baking powder, butter, eggs, brown sugar, milk, rolled oat
  # ("title"=>"Chocolate Chocolate Chocolate Cashew Cookies (with Raisins)", "href"=>"http://www.recipeaaz.com/Chocolate-Chocolate-Chocolate-Cashew-Cookies-with-Raisins-115515", "ingredients"=>"baking sod
  # ("title"=>"Double Chocolate Cookies @: @: @: Mint Chocolate Variation", "href"=>"http://www.recipeaaz.com/Double-Chocolate-Cookies-Mint-Chocolate-Variation-275188", "ingredients"=>"flour, cocoa powder, b
  # ("title"=>"Grandma Ople's Apple Pie", "href"=>"http://www.recipeaaz.com/Grandma-Oples-Apple-Pie-122086", "ingredients"=>"flour, brown sugar, pie crust, granny smith apple, butter, water, sugar", "thum
  # ("title"=>"Chemical Apple Pie (No Apple Apple Pie)", "href"=>"http://allrecipes.com/Recipe/Chemical-Apple-Pie-No-Apple-Apple-Pie/Detail.aspx", "ingredients"=>"butter, crackers, cinnamon, cream of tarta
  # ("title"=>"Easy Dutch Apple Pie", "href"=>"http://www.recipeaaz.com/Easy-Dutch-Apple-Pie-37143", "ingredients"=>"brown sugar, butter, cornstarch, flour, oats, sugar, apple, vanilla extract, water", "t
  # ("title"=>"Apple Pie With Cheese Sandwich", "href"=>"http://www.recipeaaz.com/Apple-Pie-With-Cheese-Sandwich-337501", "ingredients"=>"american cheese, apple, butter, raisin bread", "thumbnail"=>"http:
  # ("title"=>"Crunch Top Apple Pie (Paula Deen)", "href"=>"http://www.recipeaaz.com/Crunch-Top-Apple-Pie-Paula-Deen-114063", "ingredients"=>"pie crust", "thumbnail"=>"http://img.recipepuppy.com/341179.jp
```

## Submission Guidelines

1. Commit all the files to your local repo and push your repo out to your private team repo on github creating a remote branch called assignment4.
2. You can do one of the following to accomplish the above
  - a. Create a local branch called assignment4 (\$git checkout -b assignment4) and then push it out by doing \$git push remote\_alias assignment4
  - b. Work on a master branch in your repo and then do \$git push remote\_alias master:assignment4
3. Feel free to include a README.txt with any comments...