

CS 169 – Discussion 2

HTTP & RESTful APIs

Working in pairs, read through and try to answer the following questions.

1. GitHub
 - Without looking at any documentation, discuss what the following HTTP requests might do.
 - GET <https://github.com/orgs/cs169/repos>
 - GET <https://github.com/repos/cs169/homework2>
 - POST <https://github.com/orgs/cs169/repos>
 - Read through GitHub's API documentation, which can be found at <https://developer.github.com/v3>. Find answers to the following question.
 - How can I get publicly available information about a user?
 - How can I list all pull requests of a repository?
 - How can I get all closed pull requests of a repository?
 - How can I create a new pull request?
 - Which input values are required to create a new pull request?
2. Finish the following ruby implementation for a simple todo API. Assume you have access to a params hash with any necessary query parameters, along with a `format_as_json(object)` function. Return all results as a json when applicable.

```
require 'sinatra'
class User
  attr_reader :id
  attr_accessor :todo

  def initialize
    @id = app.get_new_user_id
    @todo = Todo.new
  end
end

class Todo
  def initialize
    @items = Array.new
  end

  def add item
```

```

    if not @items.include? item
      @items << item
    end
  end

  def delete item
    @items.delete item
  end

  def view_item item_id
    # assume each item instance has an accessible id field, and all items/ids are unique
    item = _____
    format_as_json item
  end

  get '/user/:id/todo' do
    user = get_user_by_id params[:id]

    _____

    _____
  end

  get '/user/:id/todo/:item_id' do
    user = get_user_by_id params[:id]

    _____

    _____
  end

  post '/user/:id/todo' do
    user = get_user_by_id params[:id]
    request.body.rewind
    raw_item = JSON.parse request.body.read

    _____
  end

  delete '/user/:id/todo/:item' do
    user = get_user_by_id params[:id]

    _____
  end
end

```