Code Challenge

Provided an IPv4 address, say 8.8.8.8, use a RESTful client to get the result from ipinfo.io (e.g. http://ipinfo.io/8.8.8.8) and take the altitude geocoordinate, casting it to an integer N. Then, use N to construct an N x N chess board. Randomly assign N/2 unique coordinates on which a Queen will sit. No other pieces will be on the board. Your program should then determine if all of the queens are placed in such a way where none of them are attacking each other.

If this is true for the given inputs, return the string true, otherwise return each pair of attacking Queens.

Solution

Attacking Queens

A Ruby program uses an IP address latitude to build a chess-board to randomly place queens and return each pair of attacking Queens.

Code - https://github.com/rah00l/attacking-queens

Program output -

```
rahul@rahul-Inspiron-N5010 attacking-queens (master) $irb -I lib
2.3.3 :001 > require 'game'
 => true
2.3.3 :002 > Game.new.run
geodata loc -> 37.3860,-122.0840
 => [[[34, 16], [34, 13]], [[34, 16], [36, 14]], [[11, 20], [2, 20]], [[11, 20], [11, 12]], [[16, 3], [18, 3]], [[37, 25], [37, 35]], [[37, 25]
, [37, 26]], [[34, 13], [29, 8]], [[2, 20], [2, 37]], [[27, 19], [26, 19]], [[37, 35], [37, 26]], [[29, 8], [8, 29]]]
2.3.3 :003 > Game.new('1.23.195.129').run
geodata loc -> 18.5333,73.8667
 => [[[15, 13], [4, 2]], [[16, 16], [4, 4]], [[16, 16], [6, 6]], [[17, 6], [6, 6]], [[4, 2], [4, 4]], [[4, 4], [6, 6]]]
2.3.3 :004 >
```

Wiki -

See the list of [available methods](https://github.com/rah00l/attacking-queens/wiki/Documentation) in the wiki.

Testcase Output -

```
Terminal                                                    ×

rahul@rahul-Inspiron-N5010 attacking-queens (master) $rspec

Board
  #assign_pieces
    assigns n/2 pieces
    assigns coordinates to a piece
    assigns unique coordinates

Game
  #run
    returns either an array or string

IpInfo
  takes an ip address
  .check
    calls HTTParty and returns the response

SlidingPieces
  #attacking?
    verifies for horizontally attacking queens
    verifies for vertically attacking queens
    verifies for diagonally attacking queens
    returns false if queens cannot attack

Finished in 0.02401 seconds (files took 0.25647 seconds to load)
10 examples, 0 failures

rahul@rahul-Inspiron-N5010 attacking-queens (master) $
```