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Radio Atlas

A web application that allows listeners to explore and play radio stations on a map.

Creating a GeoJSON of radio stations:

Since subsets are permitted, I'll constrain the geography to one country. I can query radio stations by country (eg Greece) by requesting:

<http://www.radio-browser.info/webservice/{format}/stations/bycountry/{searchterm}>

(Example: <http://www.radio-browser.info/webservice/json/stations/bycountry/greece>)

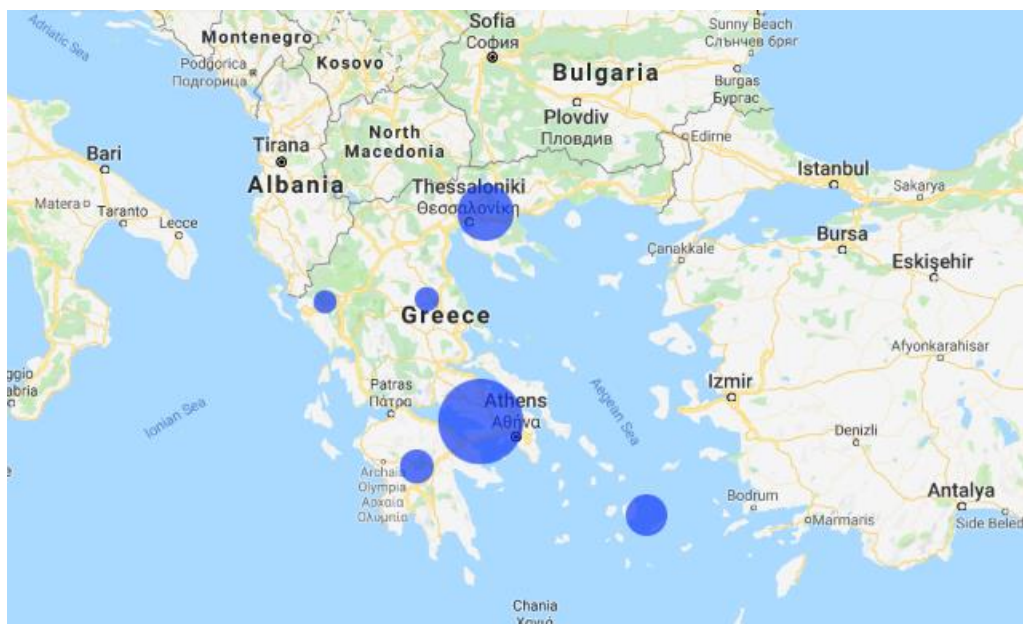
Once I have this json to work with, I'll scan it and keep only stations that have both (i) a "state" property and (ii) a "url" property. Thus I'll have a state (subdivision of county) to locate the station and a url to play the station.

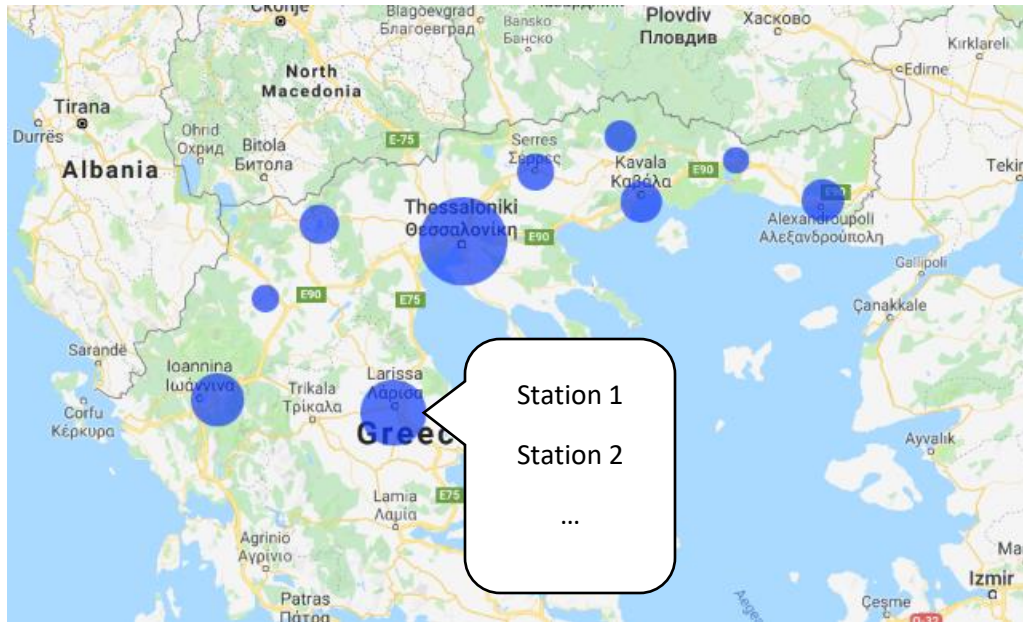
Since "states" is given as simply the names of states (i.e. no coordinates) I'll need some way to geocode those, or simply keep some sort of array/json structure to map each of the ~50 (max) state names to coordinates.

Once all this preprocessing is done, I'll output as a GeoJSON the data that my application will be based on. For each station, it will contain the essential info of lat-long and url, as well as metadata like the station's name, favicon, etc. all of which are provided by the radio-browser.info API.

Mapping & UI:

I imagine I should have a few markers when zoomed out. When the user zooms in, aggregate-markers will split into a new set of markers (sub)dividing the stations in more detailed locations. This is illustrated in the example below, where the user supposedly zooms in to north Greece (these are just plans I drew).





I think I could create this effect using Turf.js, if there's no easier way that's slipping my mind. When a user clicks on a marker, a popup will appear listing all the stations in that state/collection of states. Each item in this list will be a link that will open a new popup (taking up almost full-screen) with an iframe. That will contain the page of the url corresponding to that station. This is how stations will be played. In the future, I could make this feature more elegant.

Technologies:

Leaflet, jQuery, JSON, Turf.js

Needing assistance in:

What's the best way to make the effect I'm discussing above, with the images (I'm now thinking a more suitable term for what I'm trying to describe might be: clustering?)