

Coding task: World of Airports

We'd like you to create an application that pulls data about airports from a Cloudant database and displays their location in a simple list, sorted by distance.

We would like you to show us that you can write code that is simple, clean, well structured and easy to understand. We're not looking for a snazzy UI, nor are we looking for any extensions in functionality beyond what is stated below: we need to be able to review your code in a short time frame. The task should take around an hour or two of your time.

Please write a python application which retrieves airports from the database below, sorted by distance within a user provided radius of a user provided lat/long point. The sorting can be done client side.

We need to be able to run your code, so please provide clear documentation as to how to install/build/run your code & its dependencies. Host your app's code on a source code hosting service (e.g. Github or Bitbucket) where we can access it.

The database is world readable, at: <https://mikerhodes.cloudant.com/airportdb>. Explore with Curl or similar. This means you need not worry about credentials in your code.

We have set up a search index to return data about airports in a given bounding box. Here is an example query URL:

```
https://mikerhodes.cloudant.com/airportdb/_design/view1/_search/geo?q=lon:[0%20TO%2030]%20AND%20lat:[0%20TO%205]
```

When not URL encoded, this query is `lon: [0TO30]ANDlat: [0TO5]`. This query returns data about airports in the box latitude: 0.0 > 5.0 longitude: 0.0 > 30.0. Further information on search indexes is at <https://console.bluemix.net/docs/services/Cloudant/api/search.html>. The returned data is JSON:

```
{
  "total_rows": 32,
  "bookmark": "g1AAAAEPeJzLYWBgYm1gTmGQSULKzi9...", "rows": [
    {
      "id": "a0487237c4362b941f7332d7eb78cbc6", "order": [
        1.4142135381699,
        3 ],
      "fields": {
        "lat": 4.157639, "lon": 21.650917, "name": "Kotakoli"
      } }, pp.....
```