# CSC570 NoSQL Databases

# Programming Assignment #2

Using the same CouchDB database restaurants on your VM from Lab 6 Part 1, implement a restaurant NodeJS web front-end accordingly. For example, <https://csc570e.uis.edu:9443/>

You will need to implement the restaurants routes in server.js as well as their respective views (index.ejs and edit.ejs in the views folder). For this assignment, you will need to implement the ability to add/edit/delete every field for restaurants (name, food\_type, phonenumber, website). Name and website are required fields and validation should be implemented. Although food\_type is an array, you can consider it a single string field for this assignment. You may use the uniqid() method in the documentation or snake case to generate an \_id when adding a new restaurant.

The NodeJS package that we will use for this assignment is node-couchdb. Refer to its documentation by going to: <https://www.npmjs.com/package/node-couchdb>

Video Tutorials

If you need a review, the video lectures from Programming Assignment 1 will be helpful for this assignment as well:

**Learning Node.js**

<https://www.lynda.com/Node-js-tutorials/Welcome/612195/677534-4.html?org=uis.edu> (You may need to click the Sign In button in the upper right corner, and then log in with your UIS NetID and password.)

**Access from Programming Language (Node.js Mongoose ORM**)

[68 min 05 sec]:

https://cdnapisec.kaltura.com/index.php/extwidget/preview/partner\_id/1371761/uiconf\_id/13362791/entry\_id/1\_b88z1mj2/embed/dynamic

Use this table to determine which container is yours. You will log into the share with .\NetID for the username (.\tllos1 for example) and your UIN for the password.

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| --- | --- | --- | --- | --- | --- |
| **Netid** | | **Windows share** | | **Url of the PHP application** | |
| aa35 | | \\10.64.3.56\aa35 | | <https://csc570e.uis.edu:9444> | |
| chun1 | | \\10.64.3.56\chun1 | | <https://csc570e.uis.edu:9445> | |
| csoto24 | | \\10.64.3.56\csoto24 | | <https://csc570e.uis.edu:9446> | |
| dlo3 | | \\10.64.3.56\dlo3 | | <https://csc570e.uis.edu:9447> | |
| dpine4 | | \\10.64.3.56\dpine4 | | <https://csc570e.uis.edu:9448> | |
| ebarr5 | | \\10.64.3.56\ebarr5 | | <https://csc570e.uis.edu:9449> | |
| esuzu2 | | \\10.64.3.56\esuzu2 | | <https://csc570e.uis.edu:9450> | |
| fbata2 | | \\10.64.3.56\fbata2 | | <https://csc570e.uis.edu:9451> | |
| gmoldo2 | | \\10.64.3.56\gmoldo2 | | <https://csc570e.uis.edu:9452> | |
| jruvu2 | | \\10.64.3.56\jruvu2 | | <https://csc570e.uis.edu:9453> | |
| jryan37 | | \\10.64.3.56\jryan37 | | <https://csc570e.uis.edu:9454> | |
| momea2 | | \\10.64.3.56\momea2 | | <https://csc570e.uis.edu:9455> | |
| mturo2 | | \\10.64.3.56\mturo2 | | <https://csc570e.uis.edu:9456> | |
| mwill34 | | \\10.64.3.56\mwill34 | | <https://csc570e.uis.edu:9457> | |
| svu3 | | \\10.64.3.56\svu3 | | <https://csc570e.uis.edu:9458> | |
| vpate54 | | \\10.64.3.56\vpate54 | | <https://csc570e.uis.edu:9459> | |
|  | |  | |  | |

In order to remotely access your CouchDB VM instance you will need to make an edit to your CouchDB initialization file to listen on all IP addresses (0.0.0.0) instead of just localhost. To do so, login to the shell of your CouchDB VM and edit the file /usr/local/etc/couchdb/default.ini with the vi or nano editor and modify the bind\_address parameter to:

bind\_address = 0.0.0.0

Then reboot your Couchdb VM

You will also have to create a MapReduce view on your CouchDB VM to extract the data from your database documents. You may use something similar to the view provided on your Github lab6a.sh file (restaurants/\_design/docs). This view is referenced in the server.js file under:

const viewUrl = '\_design/docs/\_view/all';

You will need to update the server.js file with the IP address of your CouchDB VM. Ex:

const couchExternal = new NodeCouchDb({

host: '10.92.132.12',

This should be the first step you do. After doing so you should be able to see a listing of the restaurants stored in your database.

* For extra credit you may choose to implement an additional field (\_attachments) for uploading a restaurant review on the edit form.

**You will not need to submit anything to GitHub. I will grade your assignment by checking the URLs.**