**Project**

This project includes three files in total: one is the database file, named data.json, one is the python script to convert the database into my redis database and then output the result to a webpage, named project.py, and the last one is my html script in the templates file called “index.html”.

There are 55 records in data.json file, the first column is the name of each state in U.S., and the second column is the number of cases for coronavirus cases in each state in date 4/4/2020.

The code below from project.py is the conversion from my json file to the redis database:

r = redis.StrictRedis(host='localhost', port=6379, db=0)

with open('/Users/yiwenchen/desktop/nosql/redis/data.json',encoding="utf8") as data\_file:

test\_data = json.load(data\_file)

for x in test\_data:

r.set(str(x['state']), int(x['cases']))

This screenshot is my redis database updated while I run the project.py:

127.0.0.1:6379> KEYS \*

1) "Oregon"

2) "Northern Mariana Islands"

3) "Missouri"

4) "Colorado"

5) "Indiana"

6) "North Carolina"

7) "Alabama"

8) "Texas"

9) "Arkansas"

10) "Maine"

11) "Florida"

12) "New York"

13) "Montana"

14) "Mississippi"

15) "Louisiana"

16) "Washington"

17) "Tennessee"

18) "North Dakota"

19) "Michigan"

20) "Pennsylvania"

21) "Kentucky"

22) "California"

23) "Alaska"

24) "Rhode Island"

25) "Utah"

26) "Kansas"

27) "Arizona"

28) "Hawaii"

29) "South Dakota"

30) "District of Columbia"

31) "West Virginia"

32) "South Carolina"

33) "Maryland"

34) "Guam"

35) "New Mexico"

36) "Iowa"

37) "Georgia"

38) "Illinois"

39) "Minnesota"

40) "Virgin Islands"

41) "Puerto Rico"

42) "Idaho"

43) "Massachusetts"

44) "Virginia"

45) "Delaware"

46) "Vermont"

47) "Connecticut"

48) "New Jersey"

49) "Ohio"

50) "New Hampshire"

51) "Wisconsin"

52) "Wyoming"

53) "Nebraska"

54) "Nevada"

55) "Oklahoma"

Run as Example:

1. The key value of the key named "District of Columbia"

127.0.0.1:6379> get "District of Columbia"

"902"

1. To search this at my web interface:

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1. To update the value for “District of Columbia”:

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1. To delete the value for “District of Columba”:

('state: ', 'District of Columbia', 'cases: ', b'', '. DELETED!')

Appendix (Script):

Project.py:

import json

import redis

from redis import StrictRedis

import os

import flask

from flask import Flask

from flask import Flask, render\_template, request

#convert data from json to my redis database

r = redis.StrictRedis(host='localhost', port=6379, db=0)

with open('/Users/yiwenchen/desktop/nosql/redis/data.json',encoding="utf8") as data\_file:

test\_data = json.load(data\_file)

for x in test\_data:

r.set(str(x['state']), int(x['cases']))

app = Flask(\_\_name\_\_)

@app.route('/')

def index():

outdat = "Hello"

return render\_template('index.html', data = outdat)

@app.route('/', methods=['POST'])

def my\_form\_post():

state = request.form['state']

cases = request.form['cases']

option = request.form['command']

if option == "Search":

cases = r.get(state)

if cases is None:

text = ("incorrect entry. Please try again")

return render\_template('index.html', data = text)

else:

text = ("state:",state,"cases:",cases,"(please ignore the 'b' in front)")

return render\_template('index.html', data = text)

elif option == "Update":

cases = r.get(state)

if state is None:

text = ("please provide name of state")

return render\_template('index.html', data = text)

else:

if cases is None:

r.set(state, cases)

text = ("state: ", state , "cases: ", cases, ". New Entry Created!")

return render\_template('index.html', data = text)

else:

r.set(state, cases)

text = ("state: ", state , "cases: ", cases, ". UPDATED!")

return render\_template('index.html', data = text)

elif option == "Delete":

cases = r.get(state)

if cases is None:

text = ("incorrect entry. Please try again")

return render\_template('index.html', data = text)

else:

r.delete(state, cases)

text = ("state: ", state , "cases: ", cases, ". DELETED!")

return render\_template('index.html', data = text)

if \_\_name\_\_=='\_\_main\_\_':

app.run("0.0.0.0",port=80)

Index.html:

<!DOCTYPE html>

<h3>Covid Cases for U.S. n 4/4/2020 Search</h3>

<form method="POST">

<label for="state">State:</label><br>

<input type="text" id="state" name="state"><br>

<label for="cases">Cases:</label><br>

<input type="number" id="cases" name="cases"><br>

<input type="radio" id="Search" name="command" value="Search">

<label for="Search">Search</label><br>

<input type="radio" id="Update" name="command" value="Update">

<label for="Update">ADD/Update</label><br>

<input type="radio" id="Delete" name="command" value="Delete">

<label for="Delete">Delete</label><br>

<input type="submit" value="Submit">

</form>

<textarea name="message" rows="10" cols="30">

{{data}}

</textarea>

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