Final Exam

COVID-19 Tracker

Like lab 5, where you completed a CRM website for a friend, you will do the same for the final, but you'll complete a COVID-19 tracker that tracks the number of cases and deaths in each state and county in the US. The website is built in PHP and mostly complete, but it is missing some functionality and some pieces of it are hard-coded. You job is to complete the site and replace the hard-coded parts with dynamic code using loops and arrays like you did in lab 5.

Starter code is on github in the following repository.

https://github.com/KathleenFMalone/CSC2053FinalF19

You should do a clone of the repository and then get it set up in your XAMPP environment. When you are finished, you should upload your code to webster.csc.villanova.edu and submit the URL to Blackboard. You should also submit the index.php, state.php, county.php and counties.php files to Blackboard.

Instructions:

COVID-19 tracker's index.php shows total cases, deaths and total cases over the last 14 days for each state. When a user clicks on the state, it shows the number of cases and deaths per day in that state. There is also a link at the top of state.php that links to each county in the state. The counties.php page, like index.php, shows the total number of cases, deaths and total cases over the last 14 days in each county. When a user clicks on the county, it shows the number of cases and deaths per day in that county. The site uses data from the New York Times data API. The code that connects to the API and stores the data in state and county associative arrays has been done for you. That code can be found in the includes folder. You should review this code so that you know the format of the associative arrays used in the site.

index.php has been done for you as well and is complete. No further work needs to be done there. You should review the code in index.php to help you complete the rest of the site. The page that displays each county in the state is very similar to index.php.

Your task is to complete the code in the following pages:

state.php – this page displays the cases and deaths per day in the chosen state.

counties.php – this page displays each county, cases and deaths in the chosen state.

county.php – this page displays the cases and deaths per day in the chosen county.

A final version of what your site should look like can be found at:

http://webster.csc.villanova.edu/~plapro99/finalSp20Solution/

Submission: Due Wednesday at 11:59pm

Upload your code to webster.csc.villanova.edu

Submit your URL to Blackboard. I do not have access to your webster account, so submit state.php, counties.php and county.php to Blackboard. You should not have modified any other files.

Grading

20 points – Github

Getting the code from githhub.

60 points - Implementation

Each page that is implemented correctly is worth 20 points.

20 points

Code is correctly uploaded to webster.csc.villanova.edu and the link to your page works.

Readability: Make sure your code is indented and neatly commented.

Extra Credit: Due Friday

The COVID-19 tracker gets its data from the New York Times data API.

https://github.com/nytimes/covid-19-data

The tracker simply states cases and deaths in each state and county. Come up with your own page using the COVID data API that shows further analysis of the pandemic using the API. Feel free to include data from other APIs as well. Here is an example of what you can do. Governor Wolf of Pennsylvania announced a color phasing plan to allow regions of the state to exit the red, most restrictive phase of mitigation to less restrictive phases yellow and green. This page shows each county in PA and if they meet one of the criteria – less than 50 cases per 100,000 people - for entering the yellow phase. It uses population data pulled from the US Census Bureau API.

http://webster.csc.villanova.edu/~plapro99/coronavirus/counties.php?state=Pennsylvania

Points will be awarded based on effort and usefulness of the page.

Submit the URL to blackboard for credit.

I am giving you extra time to complete the extra credit because I think it is a worthwhile exercise. Not only will you learn from it, but you will have something to add to your portfolio of projects to show prospective employers. I would also be happy to show interesting pages off to the department chair.