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Deliverable 2

Project Progress

When looking at the original goal of the project, which is to create an application that is hosted on a web server and accesses a back end database, we are not too far from completion. We have our two separate containers that each host their part of the project. The one container runs Apache Httpd and is able to display an html file on a web browser. The second container has MariaDB on it but at this point has not been utilized yet in the virtual environment. We have created a java application that allows the user to create tables and then query a specific table for a field within the local hosts mariaDB. It also has a built in table to expedite the testing process. This will most likely be replaced by a much more compatible php application. Both containers are set on the same network which will allow us to have them communicate. All of these things are specified during the creation of the image so a yml file needs to be created to keep track of everything and to also speed up the process. We need to expose the ports and then upload our php application to the apache web browser to replace the default page. That application will allow the user to communicate with the back end database.

Has The Project Met Second Deliverable?

We were able to complete about 60% of the second deliverable. We have the selected services up and running individually and are on the right track to getting them to communicate but do not have them communicating. We also do not have our application hosted on the apache web server. Therefore we did not complete all requirements for deliverable two. One of the main reasons was time mismanagement. We focused much of our time on the end product instead of building from the ground up. The web application was one of the first things developed. We also did not fully understand the automation portion of docker and spent a decent amount of time trying to figure that out instead of getting everything working and then automating it. Once we

understood the problems that we were creating for ourselves things started to move a little more quickly. I did not fully understand the yml files until the end causing us to have to type in every command each time we ran a test with a different configuration. This is extremely time consuming and inefficient. Another thing we would have done different is not use the cloud the whole time to test. It would have been much easier to get all of these components working locally on a terminal and then be moved to the cloud. The testing process is easier and you do not have to worry about you experiment running out of time or cloud lab being down. The little things like that add up and can turn a small project into a big project. Knowing more about linux operating systems and how to do bash scripting would have definitely been a useful skill for one of us to have. There were often a lot of mistakes made while using the command prompt that would take up time. Some mistakes even causing us to be unable to get out of a menu using the basic escape commands that we learned causing us to have to restart the node. If we had the knowledge we have now and the amount of time we had originally to complete the second deliverable I am confident that we would have gotten it done.

Can We Meet The Final Deliverable?

With just over a week left until the final deliverable is due, We believe that the project will be completed on time. We have worked through the introductory hiccups and are on the path to success. We were able to set up both containers on the same network and are now aware that we have to expose the ports through both docker and cloud lab. The java program will most likely be sidelined and replaced by a php program. It seems that apache likes to deal with php more and it will be fine for use with MariaDB. We will keep the php program simple in order to then focus on the automation. Now that we are aware of how to do bash scripting and how to create the automated docker yml file and then execute it, the automation process will be much easier. The automation process should take less than a day once we have the containers and all the necessary files finalized.