349 REPORT

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Our 3 Virtual machines interact via the client machine allowing the user to access the webservers webpage where there are pre-set boxes to input their contact data to be saved to the database server after being lightly sanitized, which is utilising SQL for ease of use. The sanitization process is only light as more security would increase download times and decrease deployment speed. The principal behind this program is to create an easily customizable program to store contacts in a voluntary data collection way. This is to allow companies to customize our base program for their needs, such as advertising survey call lists, hotel resident contact records or any basic data recording situation. It is run through Virtual machines so it can be deployed anywhere and at any time there is an internet connection and so that regardless of the operating system they are currently running there will be no compatibility issues as the VMs (virtual machines) are all running a set version of ubuntu xenial64.

Download size
The download size of our service may be a bit bigger than the average software as a service but that is to provide a solid base foundation for customization. The biggest item we need to have downloaded is the operating system, we utilise ubuntu across all the VMs so it will only need to be downloaded once.

Unsuccessful attempts and problems

First, I tried to make a filesharing service but ran into too many complications with large file sizes, data type clashes and .tiff files. This compacted with the lockdown internet problems I faced (router would crash intermittently for up to 4 hours at a time with no warning) made this plan unfeasible, so a smaller more efficient file managing system was decided upon. But with a lack of time and understanding of how to deal with different file types and some poor communication that idea was scrapped too. Eventually we decided that a simple but malleable contact recording software was the best course of action as it was reasonable to implement and ran quickly. Majority of the fixes and error encounters are recorded in the GitHub comments or the code comments as we tried to keep the relevant fixes in the most useful places. With the covid lockdown and poor internet problems our deadline was extended to the 7th via email, and this has helped extensively improve our progress but the rate in which we could work was still hindered by technology and impaired ability to communicate on many occasions.

Modifications or extensions

This program can be altered by adding as many fields or file uploading sections to the website as needed provide the database parameters and storage is modified to be compatible this means the program can evolve from a simple contact recording system to a fully-fledged notetaking tool or file storage system.

A second useful modification would be to implement more clients in the vagrant file for the number of users they want and to increase the number of characters and fields on the webpage to create a chat server or a semi secure localised internet (because it's on its own private network).

How to use

- Download and install Vagrant from https://www.vagrantup.com
- Download and install Oracles VirtualBox Manager from https://www.virtualbox.org
- Clone the GitHub page (https://github.com/matt53211/cosc349Asgn1)
- Then in your computers terminal navigate to the folder that the GitHub files are in and type "Vagrant up" to activate the auto installer
- Download and load the OS for the client machine https://reactos.org/download/
- To access any of the Machines the username and password are both "vagrant"

Resources and services used

- Github.com
- Vagrantup.com
- MySQL
- Oracle VM Manager
- PHP
- React OS