COSC349 Assignment 2 Report

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How I deployed my application:

Install Vagrant (https://www.vagrantup.com).

Open Windows Powershell and run command:

"vagrant plugin install --plugin-version 1.0.1 fog-ovirt"

"vagrant plugin install vagrant-aws"

In .aws put in your aws account details credentials into credentials.

Create a keypair in aws under network and security. It should prompt a file to download.

Move the file into .ssh and in Vagrantfile, set aws.keypair_name and the override.ssh.private_key_path to your keypair

Choose instance type. (I would keep it at t2.micro)

Create two security groups in aws:

The first one is to allow access to ssh

Set inbound type ssh and the source as 0.0.0.0/0 and another as ::/0

Set outbound type as all traffic and source as 0.0.0.0/0

The second security groups are to allow access for web

Set inbound type to HTTP and another one to HTTPS. And for each of the types, set the sources as 0.0.0.0/0 and another as ::/0

After creating the two security groups, put the two security group IDs into the vagrant file for aws.security_groups

For subnet ID, I created one in aws under VPC.

For my AMI, I went to https://cloud-images.ubuntu.com/locator/ec2/ to find a suitable one.

Then run "vagrant up" from Powershell after configuring Vagrantfile

To view webpages, go to EC2 instances in aws and open either the Public DNS (IPv4) or the IPv4 Public IP

Now to set up a Database, go to aws and choose your prefered database from RDS (I used MySQL)

After the database finishes setting up its instance, you need to go into the folder www and into the subdirectories to set up the $dbhost as the endpoint, the $username as the user you used to make the database as well as the $password.

Then you need to create the tables, I used ubuntu to do this. Install mysql with "sudo apt-get update" then "sudo apt-get install mysql-client"

The command to get into your database is "mysql -h yourendpoint -P 3306 -u yourusername -p", it will prompt for password.

Create the database notes with "CREATE DATABASE notes" and use it with "USE notes"
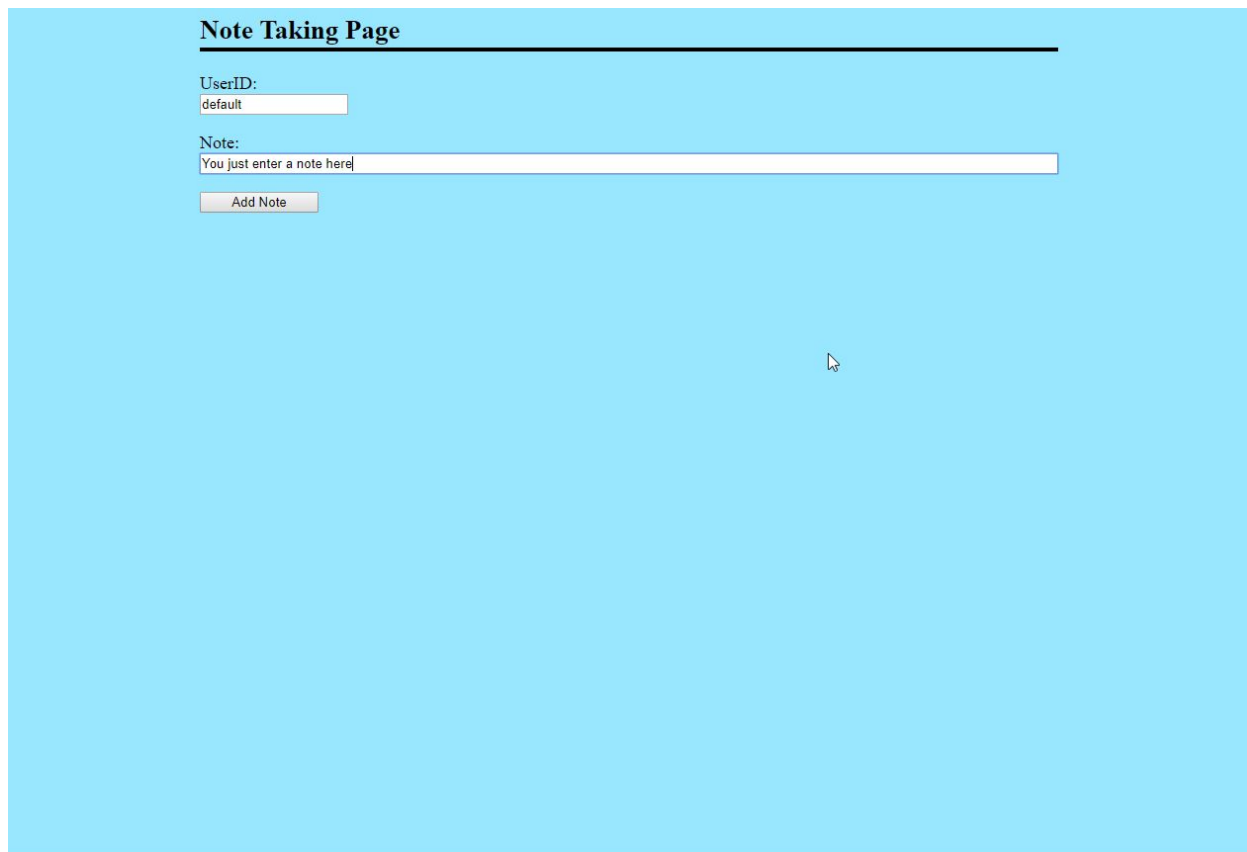Then to create the table for webNotes "CREATE TABLE webNotes(noteID int(11) NOT NULL auto_increment, note varchar(400), userID varchar(9) DEFAULT 'default', primary key(noteID));"

How to reach my application:

The following links can be used to access my application:
http://ec2-3-86-162-0.compute-1.amazonaws.com/taker_index.php
http://ec2-54-211-203-27.compute-1.amazonaws.com/reader_index.php

The user ID is set to default as default. The notes that are set to default are viewable to everyone. But if you were to make up a username, only you and those that know the username are able to view the notes.

Note Reader Page

Delete User Notes:	
View User:	default

This is a test note for note reader	default

For the note Reading page, the notes that are set to default user are shown. To view specific users note, you enter it in the text field next to view user. You are able to delete all notes to specific users you know in the first input field.

Note Reader Page

Delete User Notes:	
View User:	user1

This is my note	user1
This is my second note	user1

My choice of cloud service other than VM and how it is used:

I used an amazon's RDS MySQL as a database server following my previous design from assignment one. I created the service and configured it to store my notes, which are also linked to a userID. Another reason for using MySQL was that it was a cheaper and easier solution than the other ones because of the fact that I have used MySQL before.

The design of this Application.

The design of this application came from my first assignment. Which was to create a webserver that only inserts data into a database, and then a second web server that can only read the data stored in the database.

So for this design, I have stuck with using two webservers which are both t2 micro. T2 micro because it is the cheapest option as well as it being able to do the job I want it to do. For the database, I used MySQL from AWS RDS.

The whole application is all my design. I did show people my work to get their opinions on it so that I was able to improve it a little bit. I do regret that I did not start this project a bit earlier though because I have thought of possible improvements and features I could add.