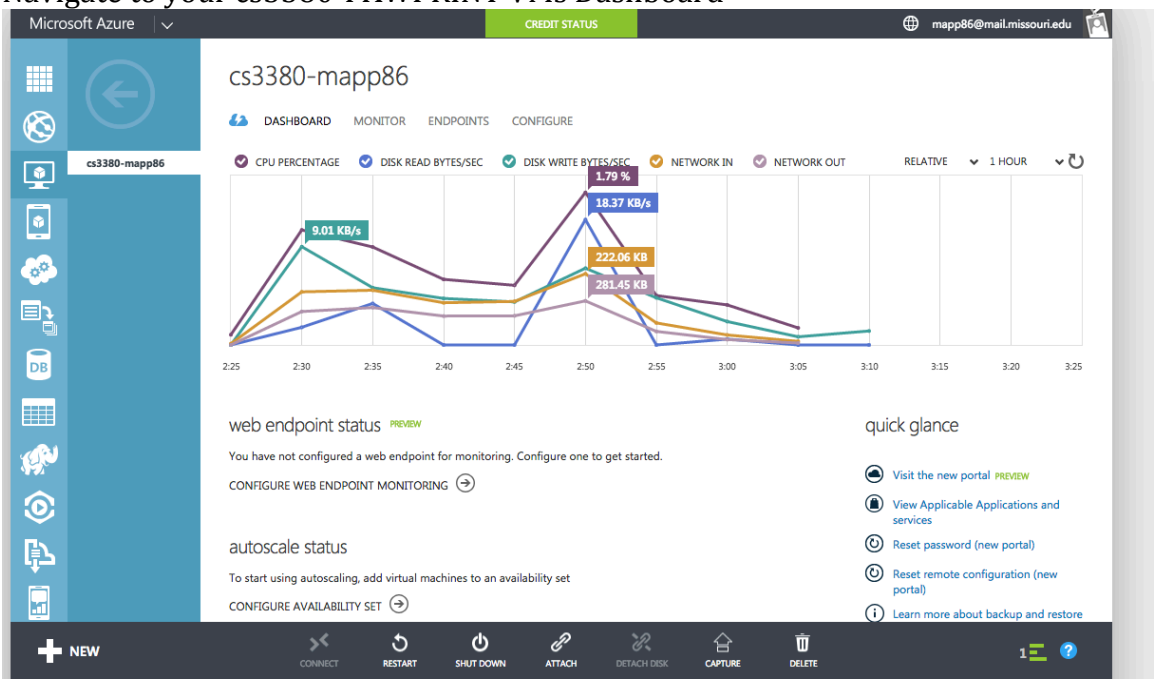
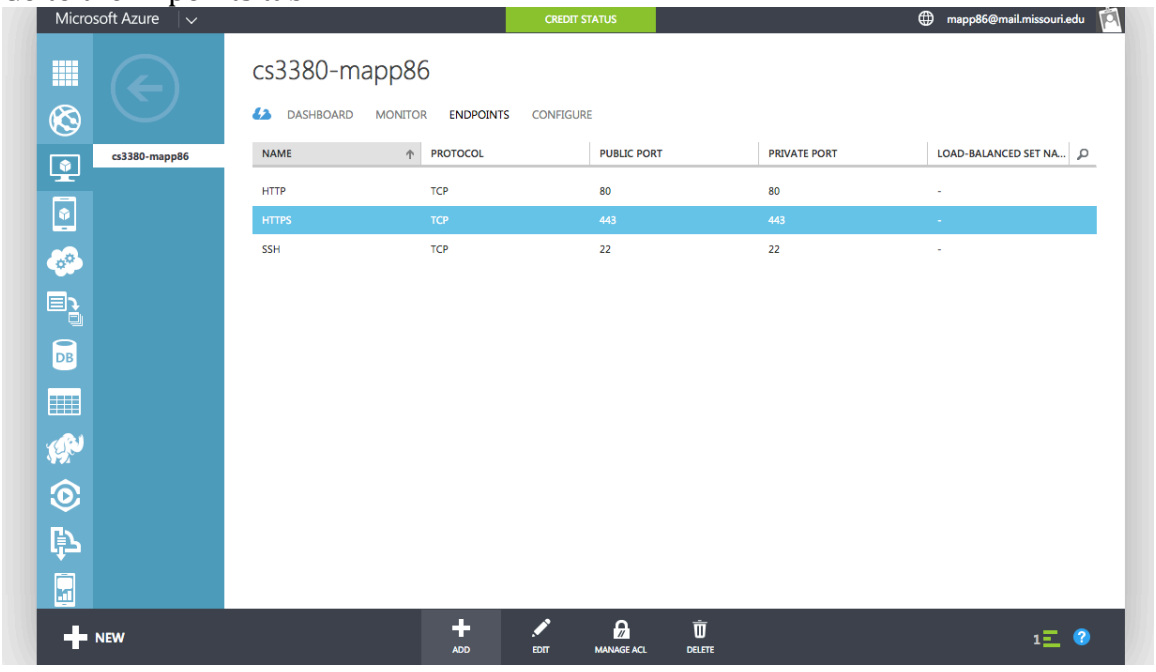
Step 1: Create HTTPS endpoint on Azure.

Open your management portal on azure.microsoft.com

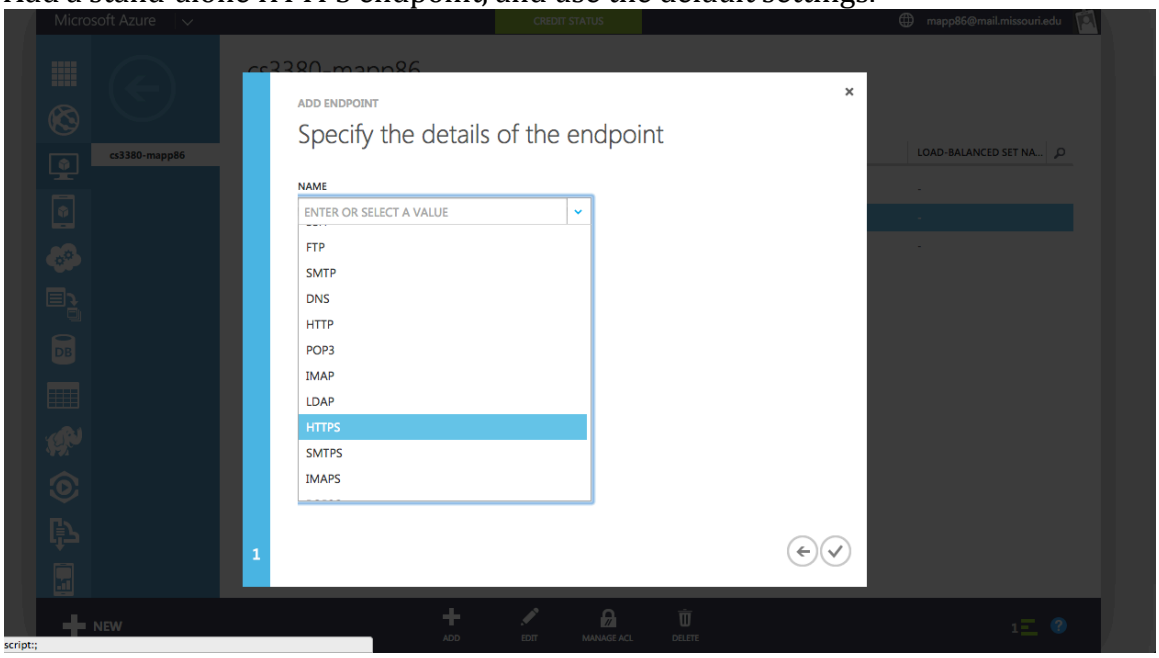
Navigate to your cs3380-PAWPRINT VMs Dashboard



Go to the Enpoints tab



Add a stand-alone HTTPS endpoint, and use the default settings.



Create a new SSL Certificate for your Ubuntu VM

(All of this information can be found at https://www.digitalocean.com/community/tutorials/how-to-create-a-ssl-certificate-on-apache-for-ubuntu-14-04)

1. Login to your Ubuntu VM via SSH
2. Create a directory for the certificates:
   ```
   sudo mkdir /etc/apache2/ssl
   ```
3. Run the following command to generate a *self-signed certificate*
   ```
   sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /etc/apache2/ssl/test.key -out /etc/apache2/ssl/test.crt
   ```
4. All of that command should be one single line.
5. You will be prompted to answer several questions:

```
Country Name (2 letter code) [AU]:US
State or Province Name (full name) [Some-State]:New York
Locality Name (eg, city) []:New York City
Organization Name (eg, company) [Internet Widgits Pty Ltd]:Your Company
Organizational Unit Name (eg, section) []:Department of Kittens
Common Name (e.g. server FQDN or YOUR name) []:your_domain.com
Email Address []:your_email@domain.com
```

Create a new Virtual Host File

1. Login to your Ubuntu VM via SSH
2. Navigate to your vhosts directory
   cd /etc/apache2/sites-available/
3. Copy a template virtual host configuration file:
   sudo wget http://cs3380-mapp86.cloudapp.net/cs3380.conf
4. Modify that file, by replacing all 'PAWPRINT' with your pawprint
5. Enable SSL
   ```
   sudo a2enmod ssl
   ```
6. Activate the VHost
   ```
   sudo a2ensite cs3380.conf
   ```
7. Restart Apache
   ```
   sudo service apache2 restart
   ```

Assignment Description

Your task is to create a user authentication system. You solution should be implemented in PHP, hosted on your Azure VM, and accessible at:

https://PAWPRINT.cs3380.cloudapp.net/lab8

Your application should provide the functionality for user registration, user login, and user logout. Your database requires 1 table, user. The DDL for this table can be downloaded at http://cs3380-mapp86.cloudapp.net/lab8/user.sql . A few notes, you MUST **hash passwords** and you MUST require **HTTPS**. Failure to do so will result in a 0% on the assignment. These security measures are critical to every authentication system. In addition to hosting you application on your Azure VM, you must zip up and submit all of your source code on Blackboard by **Sunday, November 15th at 11:59pm.**